RAILROAD

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MAGAZINE | AUGUST 50c

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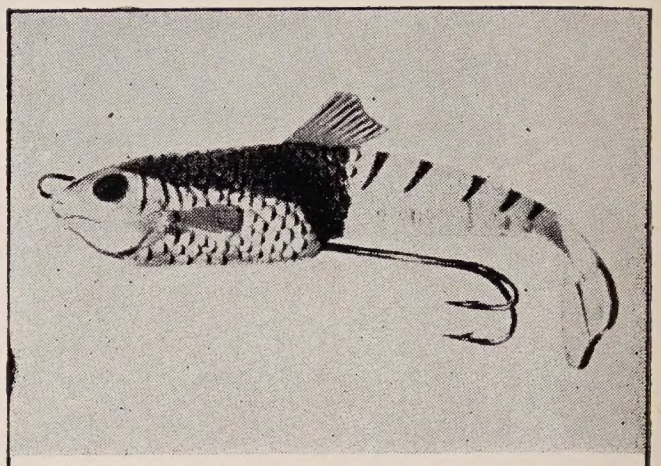

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RAILROAD MAGAZINE

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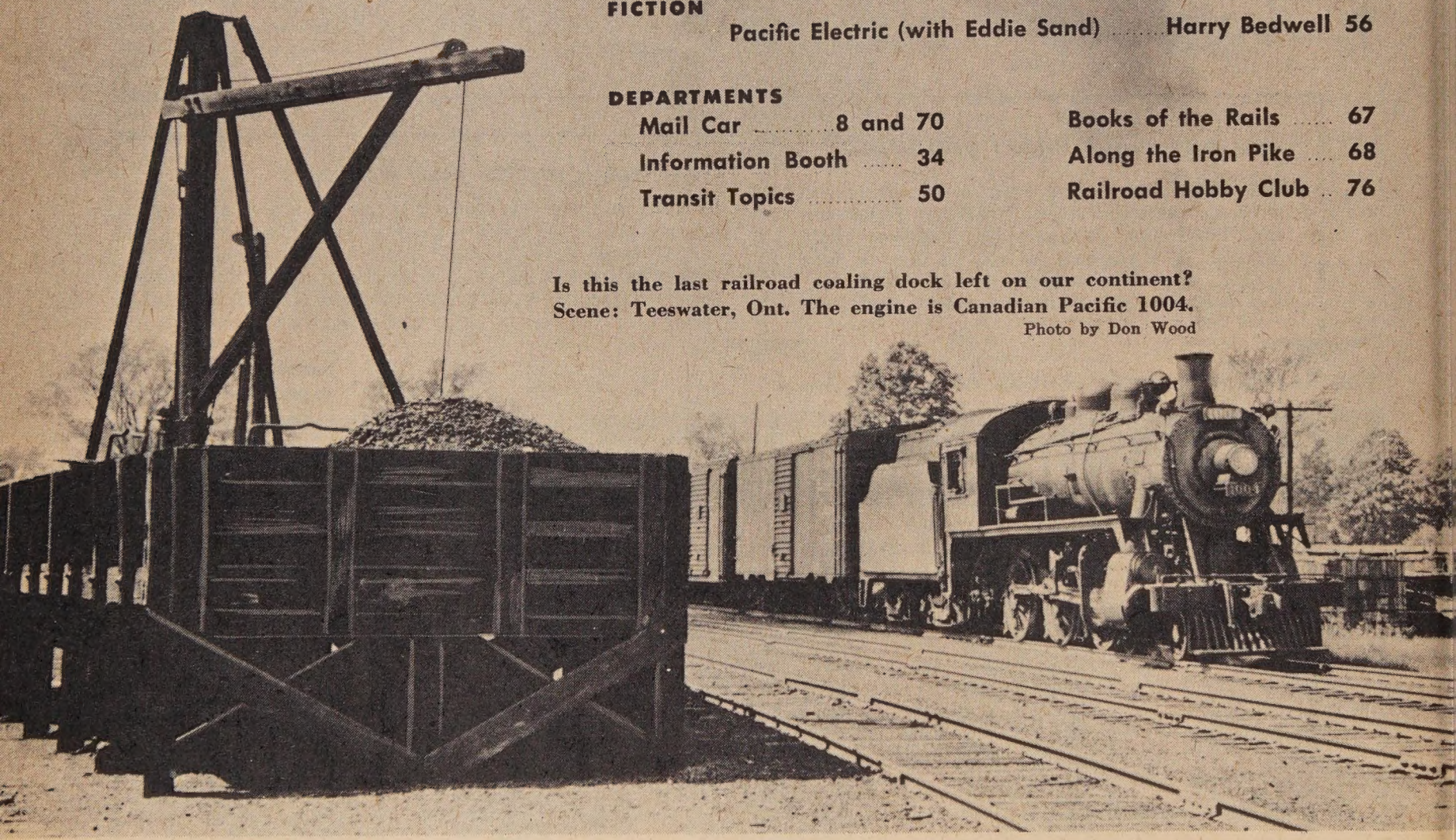

Is this the last railroad coaling dock left on our continent? Scene: Teeswater, Ont. The engine is Canadian Pacific 1004.
Photo by Don Wood

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The BIG FAT FLAME

As told to Harry Mayer

by Colonel Fred P. Dollenberg

We were stuck in the busy mid-Manhattan street. Behind us the traffic piled bumper to bumper, horns screeching indignantly. The colonel leaned over to our cab driver. "What's wrong?" he asked.

The cabbie pointed with his cigarette to the car in front, "Look."

We did. The car ahead of us — a shiny 1959 model — had stalled and the starter clattered endlessly with that empty metallic sound that you know in advance is not going to make the motor catch. Twisting the ignition key in helpless fury, the unfortunate motorist at the same time was exchanging uncomplimentary opinions with the drivers of the vehicles snarled behind him. At length he piled out of the car, wrenched at the hood, and looked fiercely at the inert engine. To no one in particular, but as though to vindicate himself to his tormenters, he shouted: "I just know it's those damned spark plugs. Only two thousand miles and already they're shot!"

Startled, I turned to my companion. "Colonel," I demanded, "is this a plant?" He stared back at me, then he got it and he began to laugh. So did I, in a moment, and there we were in this taxicab, stalled between skyscrapers and going no place, roaring as though we'd never stop.

Spark plugs! That was the joke. The colonel and I were on our way to his downtown office where I was scheduled to interview him for a magazine story. The subject — spark plugs.

You see, Col. Fred Dollenberg is the inventor and manufacturer of a device which is designed to allow automobiles to run **without** spark plugs!

Later, sitting in his top floor office, with the drapes parted to reveal the exciting lower Manhattan skyline, I got a more leisurely look at the colonel. I wondered and asked about his smashed nose, — the war maybe? — and he smiled and said no, just an opposing tackle with a very hard head. Dollenberg was an All-American mention at St. Joseph's in Philadelphia before he joined the Army Air Force as an engineer immediately after graduation. After war was declared against Japan and Germany, he saw enough action to later receive the Inquirer Hero Award as Philadelphia's most decorated flyer, succeeding a similar award to Marine hero Al (Pride of the Marines) Schmid. For a time he was personal pilot for Gen. Douglas MacArthur. Evidently there was considerable brilliance to this young fighter; he started the climb up to the brain brass, and some of the military manuals he was charged with preparing are still used by the Air Force. (Only part of this did I drag out of Dollenberg. Indeed it was a newspaper file which informed me that the colonel was a triple ace!)

It was while Dollenberg was in command of a task force of seasoned P-40 pilots that a grim incident took place which set the then Capt. Dollenberg off on his restless search for perfection. A young ace, coming in safe and sound from a mission where he had gone through murderous enemy fire, never made it to his safe hut a few hundred yards away. He nosed a bit too low — no engine power to get the plane up quickly — and the trees that lay just short of the runway caught the plane and pilot and crashed both. Dollenberg was horrified at the accident and at the paralysis of fatalism that seemed to settle on the shoulders of officers and enlisted men alike in the face of a tragedy so senseless. . . . After all, it seemed to say, it **is** true, isn't it, that more planes are lost through engine failure than are brought down by the Japs? You had to expect such things — and accept them. . . . But Dollenberg couldn't accept it. Not when the cause of this type of accident could be ripped out of the engine.

"The spark plug was invented more than 40 years ago. For the last 20 years it has not been doing an adequate job. The U. S. Navy and Air Force knew this only too well. I was commissioned to replace the spark plug with a modern efficient ignition system. I succeeded — with the Lectra Fuel Igniter. *The Navy accepted it* and took the spark plugs out of their aircraft *replacing them with the prototype of our Lectra Fuel Igniter. Today this extraordinary invention is replacing spark plugs in tens of thousands of automobiles throughout the country. By 1961 every car made will carry fuel igniters not spark plugs"* . . . Col. Fred P. Dollenberg, U.S. Air Force, from a speech at the Conrad Hilton Hotel, Chicago, January 8, 1958.

"Plug failure?", I asked. He nodded, shortly. "This tragedy and others, too. Too many others. Did you know that spark plugs were invented more than 40 years ago for engines whose limit was 20 miles an hour? These very same spark plugs — and that they haven't been changed an iota since? Can you imagine a 2000 horsepower motor depending for ignition on a skinny little spark that had been intended to help Grandpa toot around the square on a Sunday afternoon? Well, that's what these boys had under their P-40 hoods." The accident had started him off on his search, I supposed, and again he nodded. It hadn't been an easy journey. Apathy, defeatism—a young enthusiasm will always encounter these. I've done many success interviews, and it's a rare success that has been a joyride. Dollenberg spent long hours off duty working on the problem of the antiquated spark plug, but when the war ended he still hadn't cracked it. Returning to a young wife and family the colonel organized a non-scheduled commercial airline and operated it for 3 million miles, even introducing gliders for the first time in commercial aviation.

If it hadn't been for some weight-throwing on the part of one of the larger airlines which had

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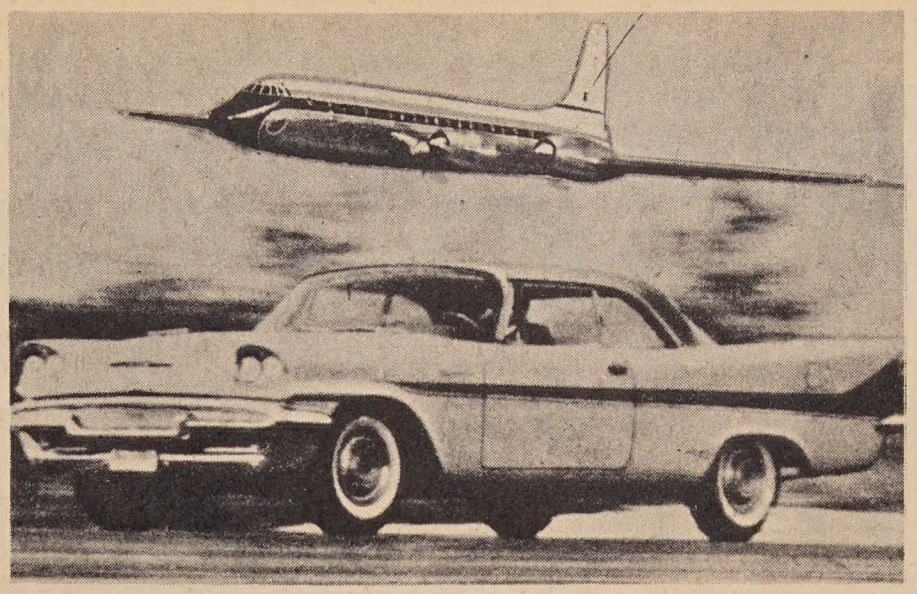


begun to smart under the irritating competition it was getting from the Dollenberg outfit, the young man would undoubtedly have succeeded in commercial aviation and this particular story wouldn't have been written. But as it was, Dollenberg was forced out of business on the sort of technicality that somehow seems always to crop out against the small business, not the big. He had to sell.

Well, there he was — with a little money left from the debacle, a family, and a living to make for them. He turned his attention once more to the anachronism of modern engines — the spark plug. Starting again from scratch,he reviewed the problem.

"It's really quite simple," said Col. Dollenberg. "An engine provides power for a vehicle because gasoline, sprayed into the cylinder, is ignited by a spark. When ignited the gasoline burns pushing the piston down into the cylinder. The more complete the burning of the gas, the more force in the cylinder. The more force, the more power. Obviously, therefore, the larger the spark the more gas ignited and burned. What we were after was a much larger spark, **a big, fat flame!**"

"And the conventional spark plug can't provide it?"

"No, it cannot. Every mechanic knows that."

"And the kid in the plane?"

"The P-40? What killed him was insufficient fire — a spark too skinny to ignite sufficient gas to give the engine instant power to climb up and over those trees."

"Why can't the spark plug give a fat spark?" I persisted.

The colonel spoke simply. "Because of its basic design. Every spark plug has an **air gap** — .025 to .035 of an inch — and the spark is no larger than the gap. No larger did I say? Only when the plugs are brand new is the spark even as large! Carbon forming immediately as the plug is put into use begins fouling, then ruining, the tip. The thin wire electrodes begin to wear away. The danger — and enormous expense — of this obsolete mechanism lies in these factors."

The answer to the spark plug was an igniter which had no airgap — which contained no wire electrodes — whose tip would not foul — which would not blow out even at the highest compressions . . . **which would never need a replacement for the life of the motor.**

Colonel Dollenberg went to Washington.

The Navy didn't accept him with open arms. The principle — fine! Let's see it work. And Dollenberg made it work. After the most exhaustive tests, he knew he was in. . . . Out went the spark plugs. The LS-702 Prototype was approved for U. S. Navy jet engine use; the Air Force followed suit.

If that had been it, it still would have made a good story — the revolutionary change that a former fighter pilot had effected in military aircraft. But that wasn't all. Dollenberg turned to the field of automobiles.

For more than 40 years the old fashioned spark plug had been the standard gas igniter for every car made. During that time engine power had soared from less than 20 horse to more than 300. Every year the puny spark plug with its skinny little flame became less able to do its job. The new high compression engines were now burning out spark plugs in a few thousand miles of driving. In 1957 Americans paid more than 500 million dollars merely to replace wornout spark plugs. To provide what spark plugs could not do, the big oil companies began to produce super and then super-super gas — at super prices! Not only were car owners spending a huge sum for plugs each year — they were also spending a fortune in premium gas for the privilege of keeping spark plugs in their engines. And even at that they were not getting their money's worth, as the new cars they bought very soon became sluggish ones.

If ever there was a call for a modern, efficient ignition mechanism to go with the modern automobile, this was it. Dollenberg heard the call. He marketed the LECTRA FUEL IGNITER!

There were problems. Little ones like designing the Igniter in the same size and shape as the conventional spark plug they were to replace. And big ones such as getting a small voice heard in the towering wilderness of the Detroit automobile kingdom. Dollenberg was helped by the shrewdness of fleet operators whose business depended upon efficiency and economy. Taxicabs running triple-shift around the clock installed the Fuel Igniter and reported a 10-20% increased gas mileage per car! Truck owners followed suit — and then the motorist. In less than 12 months sales of the Lectra Fuel Igniter zoomed into the million dollar stratosphere!

I asked Dollenberg about the Lectra advertising claim that had jolted motorists all over the country. "Colonel, you've made the guarantee that LECTRA FUEL IGNITER will save a car owner $100 a year or that you will take back the igniters and refund their money. How do you arrive at that one hundred dollars figure?"

"It's based on the average of 10,000 miles of driving in one year. First there will be a saving of from $10 to $12 a year in eliminating spark-plug cleaning, gapping, and adjusting at 5,000 miles, replacement at 10,000 miles."

"Does that mean that the Fuel Igniter will need no cleaning or replacing for a whole year?"

"It means that the Fuel Igniter will **never** have to be cleaned or replaced! I mean that we guarantee that **it will outlast the life of any car!** Not only that: we are also guaranteeing that the Fuel Igniter will squeeze up to **6—maybe 8—more miles out of every gallon of gas purchased** the first year and every year—or we will replace them free until they do. That's a saving of $40 per year. And it will do this using **regular gas**—economy gas—not the super gas bought at such walloping prices. That means a saving of $50 each year. And the Igniters will do this every year of the car's life — they improve with age. **They never wear out!**"

As Dollenberg talked I drew up a chart. You can see it at the bottom of this page.

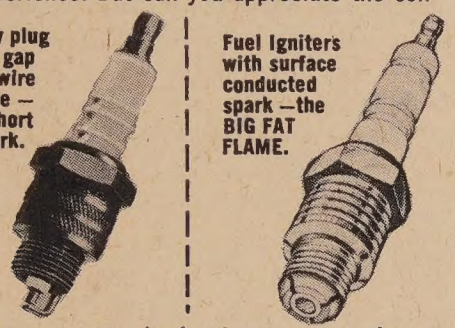
I said to Dollenberg, "Colonel, to a person like myself—a guy who drives a car well but knows next to nothing about its mechanism—who's always felt the car runs better after it's had a wash—how will I know right away I've really got something after I've switched from spark plugs to Fuel Igniters?"

The colonel twinkled at me in sympathy. "I've always felt it a pity they don't teach mechanics to all school children. I think I know just how you feel. Anyway — very seriously — please listen to this: The first time you press the starter after you've installed the Igniters (very simple — by the way), you'll hear and feel an instant clean throb of the starter and an immediate even roar of the engine. I tell you, you'll be astonished. Even on the coldest morning you'll get a thrill, listening to your motor kicking over instantly and then settling quickly into a smooth purr. As for stalling in traffic, like that fellow did this afternoon, that won't happen to you. Stalling is almost always traceable to a faulty spark—and the Igniter will not fault. Climbing and passing? Even a big 325 horsepower car can and does falter on a hill or when it tries to pass if suddenly the spark plugs aren't burning sufficient gas. That won't happen to you. Instead you'll climb and pass more

HOW MOTORISTS ARE SAVING $100 A YEAR

	SPARK PLUGS	LECTRA FUEL IGNITERS	SAVINGS
Cleaning, Gapping, Replacing	several times a year	never	$10 per year
Gas Consumption	600 gallons	465 gallons	$40 per year
Additional cost of premium gas	$50 a year	not a cent	$50 per year
		TOTAL SAVINGS =	$100 per year

swiftly than you've ever known because you'll be burning gas, not wasting it. You've heard about the simple exhaust test? Try it. First, with the spark plugs in place, let the engine idle and stuff a ball of white absorbent cotton into the mouth of the exhaust. It will come out soaking with **unused** gasoline. Then try it with Igniters replacing the plugs. The cotton ball will be almost dry. The gas **burned** instead of escaping through the exhaust. Or here's something else. Again with spark plugs in the car, go into gear – or in drive if you have an automatic transmission. Don't touch the accelerator. Now note how much the car moves forward–if at all. Then unscrew the plugs and replace the Igniters. If you stood still with spark plugs you'll move forward from 4 to 6 miles an hour with the Igniters while not touching the gas pedal! The gas that was required with spark plugs in your car merely to idle your motor without being able to move it forward, carries you forward up to six miles an hour with Igniters in the engine! One more final thing–with spark plugs a car must be looked over and adjusted several times a year. You know that from your own experience. But can you appreciate the con-


Ordinary plug with air gap on thin wire electrode – single short thin spark.
Fuel Igniters with surface conducted spark –the BIG FAT FLAME.

cept of **never, never** having to remove or change spark plugs because you don't carry any? The concept of Fuel Igniters becoming **permanent** installations in your engine – for the life of your engine?

"Yet, with all this – believe it or not – I still haven't fully answered your question . . . How you'll use more air and less gas . . . the savings on your battery . . . increased RPM . . . how carbon – the enemy of spark plugs – actually increases the efficiency of Fuel Igniters. But what I've tried to say is that the spark plug is as inferior to the Fuel Igniter as the wagon is to the modern automobile. And just as out-dated. Auto mechanics know this now. The ordinary motorist is learning about it fast."

"One last question: What about Detroit, Col. Dollenberg? Do you feel you're fighting a crusade?"

Dollenberg looked out of the window, out into the dusk of the city. There was a reflective quietness about him as he thought of his reply. Then he said: "No, we don't believe we're fighting the big spark plug manufacturers. Oh, there's bound to be a competitive fight soon because it's a matter of only a short time before these giants will all scrap their investments in the obsolete spark plug and turn to the manufacture of fuel igniters. Meanwhile – to put it quite candidly – there is, of course, that huge investment in stocks of spark plugs to liquidate and while the big fellows are attempting to unload, LECTRA will be booming along." The grin came out again as he said: "I hope they take their time about it. At the rate we're going we'll be big enough to take care of ourselves shortly."

I got up to go, convinced that Dollenberg's quiet confidence was well-founded. The product and the man were right for each other. Here's an incident which impressed me. A short time ago, LECTRA ran a mail order advertisement in the sober New York Times. One of the replies they got was from a gentleman in Pennsylvania who put it to LECTRA right on the line. Said the Pennsylvania man:

"I've read your ad in the New York Times. What I want you to do before I order a set is for you to send me a copy of that ad through the United States mails. Then if your Fuel Igniters won't come through with all those fancy promises – and if you don't send my money back if they don't perform as you say – I'll have Uncle Sam on my side while I go after you." The hard-bitten Pennsylvania man sent the ad through the mails, all right. And he ordered a set of Fuel Igniters. LECTRA wasn't fearful that Uncle Sam would be after them. Because – and here was the kicker – **Uncle is a LECTRA customer!** A large U. S. Government agency, after field-testing 5,000 Fuel Igniters **ordered 25,000 to replace every spark plug in a fleet of 3,000 key vehicles!**

So that's the story of The Big Fat Flame. I'm leaving a little space for a message from Col. Dollenberg. Meanwhile I'm on my way outside to the garage with my set of Fuel Igniters. I can't wait to get rid of those spark plugs!

This article has been presented both as an advertisement for the Lectra Fuel Igniter and as a public service. Especially do I wish to emphasize the words **public service.** It is flattering to be imitated, it is said, but since the invention of the Lectra Fuel Igniter, there have appeared so-called "imitations" which have failed to perform as promised.

We state, flatly and sincerely, that we **can** back every claim that appears in Mr. Mayer's story. Please look very carefully at the table which follows. **It has been prepared from the research of one of the nation's leading Consumer Surveys:**

RECORD OF PERFORMANCE – LECTRA FUEL IGNITERS

NOTE–All Lectra-equipped cars in these tests used REGULAR GAS

(Compiled from Consumer Reports and Field Tests)

YEAR	Make of Car	Spark Plug Miles Per Gallon	Lectra Fuel Igniters Miles Per Gallon	Miles Increase	(Gain) Extra Miles Per Gallon
1956	Chevrolet V8	17.7	22.2	24%	4.5
1955	Nash Rambler	20.0	27.6	38%	7.6
1954	Plymouth 6	22.2	26.0	17%	3.8
1955	Ford Fairlane	14.0	21.2	50%	7.2
1957	Chrysler Windsor	16.5	21.0	20%	3.5
1954	Oldsmobile 98	15.5	18.0	14%	2.5
1957	Dodge D-500	16.0	21.5	35%	5.5
1951	Buick Super	13.0	17.0	22%	4.0
1956	Plymouth V-8	16.0	20.0	25%	4.0
1955	Oldsmobile 98 (air-conditioned)	15.0	20.9	40%	6.0

All above figures confirmed by letters and reports available from our files in New York City.

Nothing is as exacting – as compromising – as cold statistics. In the final analysis, nothing will prove to you the extraordinary benefits of the Lectra Fuel Igniter as its performance in your own automobile.

Therefore we guarantee (and stake our reputation and our business on this guarantee):

That Lectra Fuel Igniters must be everything we say they are, everything we have led you to expect. They must make your car perform as you never thought it would and on **regular gas.** You must IN YOUR OWN JUDGMENT get easier starting, faster pick-up improved economy (to conform to the table above) or you can return them after a 10 day trial and get back every cent you paid – without question and without delay. What's more – they must **continue to function** properly for the life of your car or they will be replaced until they do.

We've taken a lot of your time in presenting our story. Now there's nothing else to say; the rest is up to our Fuel Igniter. If you want to try them (bear in mind our guarantee) they will be rushed to you as soon as we receive your order. For your convenience we are adding a coupon to the bottom of this page. If you'll fill it out and mail it I can promise you the most exciting automobile experience you've ever known.

Sincerely,

Fred P. Dollenberg

Lectra Fuel Igniter Co. Dept. **GK1**
11 East 47 Street, New York 17, N. Y.

Rush my Lectra Fuel Igniters by return mail on your money back guarantee.

☐ I enclose $12.60 for 6 Igniters

☐ I enclose $16.80 for 8 Igniters

☐ I enclose $.....for.....Igniters at $2.10 each

☐ Send.....Igniters C.O.D. I enclose $1 deposit and will pay postman balance on delivery plus shipping charges.

My car is.....year.....make.....model

.....no. of cylinders

Name .....

Address .....

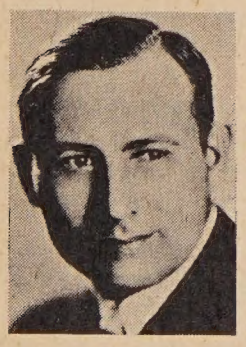
City .....Zone....State.....

MAIL CAR

Railroaders and Fans Sit in With the Editorial Crew

The only steam locomotive running today in Washington, D. C., except two "fireless cookers," is No. 4 of the Health, Education and Welfare Dept., operating over short track between St. Elizabeth's Hospital and B&O siding near Bolling Field.
Robert H. Black, 1909 Forest Dale Drive, Silver Spring, Md.

AUTHOR of "They Burned Union Station" is "Carload Andy" Ospring, a former locomotive engineer, 1322 N. Ontario St., Burbank, Calif. His father, Andrew Ospring, also a hogger, was known on the St. Louis, Vandalia & Terre Haute as "Dutch Andy."



Andrew J. Ospring

"As a youngster going to school," Carload recalls, "my estimation of a railroad engineer's life was tops. Riding in the cab with Dad, no matter how short the ride, was always a thrill and strengthened my desire to run engines when I grew up. In 1903 I met Kathryn Yost, daughter of a C&EI engineer, who is now my wife.

"Well, I hired out to the Vandalia on July 4, 1906, when I was 18. My first job was firing a yard goat. Later I fired slow freight, passenger, and work trains. As the size of engines and trains increased, so did the work of shoveling coal. In 1913, shortly after the Vandalia got its first steel passenger cars, I hung up my scoop and moved over to the right side of the cab.

"The Pennsy took over the Vandalia, which became its St. Louis Division. The year 1915 saw some bad smash-ups on that line. Huge Class H freight hogs appeared. Old Dutch Andy began to catch the new Pennsy K-1's, which we called 'flat tops.' During the first World War I worked on the Union Pacific for about a month and then transferred to the Santa Fe. Dad passed away about the time the war ended, and I quit railroading shortly afterward.

"From the bottom of my heart I rejoice that the steam engine is gone. I helped dig out too many hoggers and firemen from under the cab in wrecks. While I was firing I worked sometimes as long as 42 hours at a stretch. Often I was so tired that I could hardly walk. When we'd go into a siding both the engineer and I would fall asleep from sheer exhaustion. Yes, sir, I am glad those days have gone forever." ●

WHERE can I get an old-style train-order hoop?" asks Miss Selma J. E. Prescher, former Southern

You'll soon be happy in a great new job...

...earning BIG money...

...if you start training NOW for success in

AIR CONDITIONING AND REFRIGERATION

ONLY CTI SENDS PARTS AND TOOLS TO BUILD A CONDENSING UNIT!

You could be earning top pay in months. It's mostly a matter of getting your training now. Your best bet is to be a mechanic in the air conditioning and refrigeration field. This industry is growing so fast that *20,000 newly trained mechanics are needed each year.* Over 150 million units are in use; over 5 million new air conditioners, freezers and refrigerators are sold annually. Skilled men are desperately needed for installation and repair work. Be a mechanic! *Mail coupon for free success booklets on CTI's amazing new Home Training Plan.*

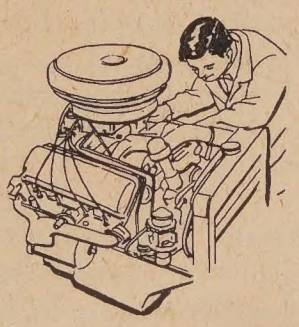
You can earn cash during your training

Because CTI training is so *practical,* you'll soon be making profitable service calls. Perhaps you'll work on your own. Or, you may prefer to get a part-time job with a local appliance dealer or air conditioning contractor. You can add to your present income this way. With extra cash, you can buy additional shop equipment, pay your tuition, even bank money.

You could go in business and be independent

Own a business—and enjoy independence! Thrill to the satisfaction of being the boss. Give orders—not take them! The refrigeration field is ideal for getting started on your own. You can make friends as you make service calls. In time, you'll have a list of potential customers. You can also sign service contracts with food stores, taverns, restaurants, etc. Ever so many CTI graduates have their own successful shops. Most of them began with nothing more than their new training and pluck. You, too, can start small and grow big. Be a business man!

You could get into the profitable new auto air conditioning field



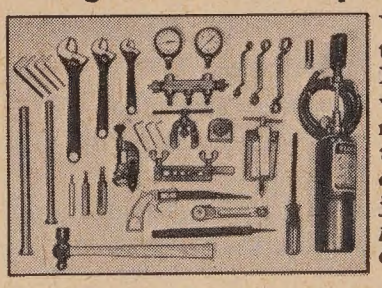
Hundreds of thousands of new cars are being equipped with air conditioners. Auto dealers are advertising for skilled refrigeration mechanics, offering premium pay, to set up service departments. Or, you can go in business for yourself, and contract with auto agencies to do this type of installation and repair. You can make big profits either way.

You learn fast because you practice with real equipment — Get experience

You train at home in spare time. No need to give up your present job; no need to leave home to attend a resident school. *CTI sends 25 kits of parts and tools* to build a heavy-duty, commercial-type, ¼ h.p. refrigeration high-side (illustrated above.) You do 10 trouble-shooting and service jobs—it's almost like field training!

After assembling and working projects with your unit, you may build an air conditioner, refrigerator, freezer, or milk cooler. *All parts and tools are sent without extra charge*—they are yours to use and keep.

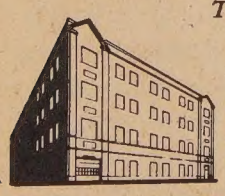
You get all these quality mechanic's tools



You get special "tools of the trade" as part of your training. Included is a pressure gauge, vacuum gauge and testing manifold. You'll use these tools to assemble and test the condensing unit. Thus, you get not just tools—*but equipment to practice with.* (Why settle for one without the other?)

You must look into your opportunities

Thousands of CTI graduates (and students) tell us they are getting better jobs, earning more money, working steady. Many are going in business. It is surprising how many report the best benefit of all is that they gained self-confidence. With so much at stake, can you afford to neglect *your* opportunities? Isn't it worth a few minutes of your time to *find out?* Just fill out and mail the handy coupon! Be sure to act today.



This is the home of CTI, one of the world's great home study schools. Through this Institute you receive "training you can trust." Over 40,000 career graduates from coast to coast.

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Mail Coupon Today for 2 Free Booklets

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Send me your two opportunity booklets, *Success in Air Conditioning & Refrigeration,* and *Lesson Sample.* Both FREE.

Name_____ Age_____

Address_____

City_____ Zone____ State_____

Pacific telegraph operator, 10665 Pearmain St., Stonehurst, Oakland 3, Calif. "I mean the kind made of bamboo twisted into a large figure 9, about 36 inches from top of hoop to base of handle, with a spring-clip to hold the 19 order and clearance card at the point where the curve joins the handle. We handed up flimsies to hogheads and conductors with those hoops. The train would slow down for them to pick up the order but didn't stop unless the board said it was a 31, which had to be signed for."

Selma, nicknamed "Es Pe," can't find anyone who knows how to obtain such a hoop.

This lady asked an agent to subscribe to *Railroad Magazine,* but he said he got all the railroading he wanted in his office eight hours a day and was interested only in "chasing girls."

We are surprised to learn that anyone would rather chase girls than read *Railroad Magazine.* ●

OVERSEAS note from Robert Pscheid, Bregenz, Jahnstrasse 20, Austria: "I got last year a piece of *Railroad Magazine.* I found it very interesting because I am employed by the Austrian Federal Railways. I could read most of it. Please send me a whole copy of *Railroad Magazine,* even an old one. Thank you."

Evidently our magazine is so scarce in Mid-Europe that Mr. Pscheid treasures even a fragment of one issue! The rail system he works for is still operating largely with steam power but began buying diesels in 1952 to replace steamers as they wear out. Austria now has in service 100 diesel locomotives and 35 RDC's (rail diesel cars) and has set 1975 as its deadline for complete dieselization.. ●

A NEW type of railroad spike, designed and patented by Lee Spencer, is being manufactured by Jones & Laughlin Steel Corp., Pittsburgh, Pa. Known as the Spencer-Spike, it is expected to cut track-maintenance cost. Maybe it will. We don't know.

Spencer was a roadmaster in charge of about 400 miles of track in the Long Island's New York terminal area. Even after he retired he was still interested in track. One day he noticed something. Spikes that bent while being driven into the ties did not loosen so easily as those driven in straight. He made many tests and finally developed

Spencer-spike, at left, is slightly twisted at the place where pressure is hardest and thus it resists the kind of damage shown in standard spike at right.

a slightly crooked spike that would prevent the tie-plates, which anchor the rails to wooden crossties, from shifting and causing abrasion of the tie surface, depletion of the rails, and loss of track gage.

This device looks like the conventional straight spike but has a twist of about 15 degrees in the upper portion of the shank. The twist provides a tighter hold on the tie-plate. New York City Transit Authority has adopted the Spencer-Spike for use on its subway-elevated tracks.

Bob White is less enthusiastic. Bob is a Grand Trunk Western section boss living at 514 N. 5th St., Grand Haven, Mich.

Says he: "I have handled railroad spikes for over 30 years now and I can't see how twisting a spike's neck will fill the hole (slot) of the tie-plate. Heavy traffic will soon wear off enough of the twist to turn the Spencer-Spike back to standard. Tie-plates have a way of cutting into the ties and holding themselves so that the spike will go along with the plate anyhow." ●

ELEPHANT STORY. That grim controversial photo of Mary being hanged by a big hook in the Clinchfield Railroad yard at Erwin, Tenn., is printed on page 37 both as a historical record and to encourage humane treatment of dumb animals. We agree with those who denounce the method of execution as cruel.

Unhappily, Mary had broken the law. She had slapped around a circus trainer with her trunk, killing him, and may have caused the death of two other men —for what provation, who knows?

Shooting her would have been less brutal, but there wasn't a gun in the county big enough for the job. At times, incurably ill pachyderms are put out of their misery by being fed poisoned apples. This is a quick and rather painless method, but apparently the Tennesseans had never heard of it.

More than 5,000 morbidly curious people crowded the railyard on a gray Saturday afternoon in September, 1916, to see the death agony of a great beast that had entertained them happily under the big top only a few hours before.

Weeping circus men brought along the entire herd of Sparks Brothers elephants to keep Mary company till the end. Those other "bulls" knew what was going on. They trumpeted with fear and shed tears. S. W. Bondurant, the Clinchfield wreckmaster, supervised the hanging, while his daughter had what she called "a ringside seat."

The old trouper fought for her life. With mighty strength she broke away from the scene of horror, but was dragged back. Finally, the railroad crane hoisted her aloft by a chain and held her up till slow death ended the struggle. Circus roustabouts buried her sadly on the east bank of the Nolichucky River. ●

A HELICOPTER preceded all Seaboard Airline trains entering Pinellas County, Florida, one day recently, sounding a warning to motorists to be cautious when approaching unguarded railroad crossings.

The helicopter, with a county patrolman aboard, flew directly in front of the trains and blared a siren and flashed a red light at each crossing. It was a unique one-day project. The helicopter picked up the trains as they entered the county and escorted them to the St. Petersburg city limits.

This was done to dramatize the fact that several persons had been killed at unguarded grade crossings in the county. ●

SOUTHERN PACIFIC has been accused by the California Public Utilities Commission of deliberately allowing its services to deteriorate in order to discourage passengers from using its trains and of presenting evidence that is ". . . lacking in integrity."

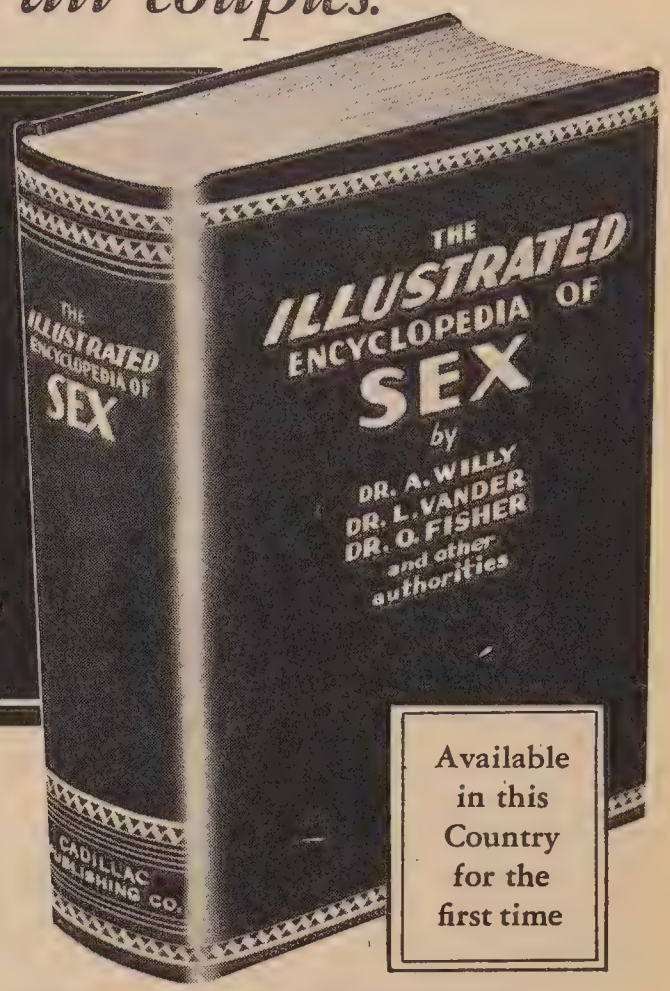
The railroad, the Commission said,

(Continued on page 70)

at last...a complete, modern guide to lasting mutual sexual happiness for all couples.

Illustrated SEX FACTS

By DR. A. WILLY, DR. L. VANDER, DR. O. FISHER AND OTHER AUTHORITIES



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THIS GIANT SIZE BOOK CONTAINS HUNDREDS OF AUTHENTIC, ENLIGHTENING ILLUSTRATIONS — *many in life-like color.*

Now available to the public in this country, for the first time, is this big guide to modern married sex practice. Written and illustrated by the most noted physicians and medical artists on sexual enlightenment. See and read how you can acquire enduring, harmonious married love by means of hundreds of exclusive, authentic pictures (many in true-to-life color), plus detailed step-by-step instructions written frankly and simply. This complete, large book includes important NEW information and illustrations never released here before. This book is a frank, straightforward presentation of facts to satisfy mature interest in the sex functions of the human male and female. Gives the most helpful authoritative guidance on sex problems of every kind — both abnormal as well as normal. Clearly understand and see the physiology and functions of the sex organs of both male and female. Many troubled men and women have found a new, happy married sex life and new confidence in themselves by reading "The Illustrated Encyclopedia of Sex." Sells for $5.00—but it is yours for the amazing low friend-winning price of only $2.98. This offer good for a limited time only. Mail coupon NOW!

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Send me "The Illustrated Encyclopedia of Sex" in plain wrapper marked "personal." I will pay postman $2.98, plus postage on delivery (sells for $5.00). If not completely delighted within 10 days, I can return book and my money will be refunded. I am over 21.

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CITY ..... ZONE ..... STATE .....

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- Techniques that bring complete gratification to the sex act for male and female
- What causes climax in women
- Blunders made by men in sex act. How to avoid them
- Technique of first sex act on bridal night
- Why woman fails to attain climax
- Husband and wife attaining mutual climax
- How male organs function in intercourse
- How female sex organs function in intercourse
- How sexual urge in woman differs from man
- Woman's perfect complete sexual satisfaction
- How to derive perfection in sexual act
- Reactions of man and woman during sexual relations compared
- The truth about sex vitamins that improve sexual powers
- Natural birth control
- New discoveries in birth control
- Woman's fertile days
- Causes of sex drive in women
- Female frigidity, its causes and cures
- Causes and cures for sexual impotence in men
- Abnormal sex organs and what can be done
- How to correct male's premature climax
- Delaying sex life's finish
- Male change of life and its effect
- Causes and treatment of male and female sterility
- Feminine self-satisfaction
- Causes of sexual urge in men
- How sex activity affects weight of male and female
- How to use preparatory love towards greater satisfaction in sex act

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- Showing functions of male sex organ
- Illustrating effects on breasts after pregnancy
- Showing areas of woman's organs producing highest sensations
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How to have a boom without a bottleneck

$1,100 more spending money per family . . .

Thirty-three percent more goods . . . in just ten years . . .

Economists see growth and prosperity in your future. American ingenuity and skill will produce more of the things you want to buy . . . and you will have more money to buy them.

The production boom will depend largely on the efficient, low-cost transportation which only the railroads can provide. In 1969, there'll be 500 billion *more* ton-miles of freight to move each year.

Financially sound, progressive, and strong railroads are essential to a dynamic American economy and to our national defense. It is of vital interest to everyone that the railroads be given the equality of treatment and opportunity upon which their future health depends.

ASSOCIATION OF

AMERICAN RAILROADS

WASHINGTON 6, D. C.

With exhausts reverberating and with picturesque smoke-clouds filling the sky, the Santa Fe *Chief* rolls majestically eastward through Cajon Pass near Summit, Calif., doubleheaded by No. 3739, a Mountain type engine, and No. 3755, a Northern type.
Photographed in 1937 by Lucius Beebe, author of forthcoming book "Mansions on Rails"

Photos of the Month

A colorful era ended in 1956 when the Southern Pacific operated the last passenger ferry across the sparkling greenish water of San Francisco Bay for the last time.
Southern Pacific Company

Steam Age silhouette: a Central Vermont hogger waits for the highball at Brattleboro, Vt., in the cab of 2-8-0 type No. 452.
Photographed in 1957 by David Plowden, 1239 Madison Ave., New York City

Canadian National engine 6076, a 4-8-2 type, wheels train 82 across the Grand River at Paris, Ont., on the run from London to Toronto.
Photographed in 1957 by R.R. Malinpski, 246 Madison Ave., New Milford, N. J.

The Philadelphia Suburban Transportation Company is still keeping a few of its center-entrance cars for use during snowstorms. We see here a two-car train on the Ardmore line.

Sy Reich, 92 St. Marks Place, New York City

The Railroad Navy

Passenger Ferries Are Fading into the Sunset, Unable to Compete With Bridges, but Other Railroad Fleets Gain in Total Power and Capability

by David Marshall

The Pennsy tug *Amboy*, with a crew of salt-water railroaders, hauls barges loaded with coal from pier at South Amboy, N. J., into New York City.
Pennsylvania Railroad

IT'S IN THE NEWS again, the railroad navy, and the news is mostly good. True, the fleets are dwindling numerically. In ten years the number of vessels owned and operated by railroads of the United States and Canada has dropped 16 percent. As compared with a round-figure total of 1,900 afloat in 1949, you will find only about 1,600 today.

This includes 200 steamships, carferries, and tugboats, and 1,400 passenger ferries, carfloats, barges, and lighters, plus a large variety of special-purpose craft such as floating grain elevators, derricks, and pile-drivers, and the latest thing of all, floating earth-movers.

The shrinkage began thirty years ago and, until recently, was taken for granted. In the second half of 1958, however, it was dramatized abruptly by two events occurring in quick succession on opposite sides of the continent. San Francisco Bay lost its Southern Pacific passenger ferryboats and then, a little later, New York Harbor was swept bare of Erie Railroad passenger boats.

Ludington, Mich.: Night loading of the C&O trainferry *Spartan*.
Chesapeake & Ohio Railway

The last ferry of each road made a ceremonial farewell run, with newspaper publicity, and afterward each one quietly slipped her hawser and shoved off for the haven of unwanted things—where the water, we hope, is deep and smooth and the wearied wind is still.

Passenger ferries are only one of many railroad fleets. Among the others, almost without exception, the numerical shrinkage has been accompanied by an unmistakable gain in total power and capability.

With tugboats and carferries especially, the gain in power has more than offset the numerical loss. Tugboats and Lake Michigan carferries today have greater work capacity than ever before. So, too, the carfloats are fewer but bigger and, towed by faster tugs, can handle more freight than their predecessors handled. The same situation holds, with few exceptions, all up and down the line.

Just a few years back, the last of the great Southern Pacific ferries that carried entire trains, including steam locomotives, disappeared from the sparkling waters of North America. Since then, four of the finest, swiftest, and most powerful carferries (the Chesapeake & Ohio calls them *trainferries*) have been launched, three on Lake Michigan and one on San Francisco Bay, while three spanking new steamships have entered the Canadian National Railways' Newfoundland service.

Thus, with all its gains and losses, the railroad navy is changing constantly. It stands today at the peak of its importance. Its vast and complicated maneuvers herald a new phase in transportation history.

The railroad navy, working 24 hours a day, is indispensable to rail operation. Though heavily massed in the East and on the Great Lakes, its scope extends from the Atlantic coast to the blue Pacific and covers a dozen "water links" in between.

It's a gigantic enterprise, an investment of probably $150 million, which is money enough to buy 116 of the biggest diesel-electric locomotives plus 116 modern trains of 100 freight cars each, including metal cabooses.

In Canada, the railway water links are many. One steamship line provides a bridge for rail traffic across the Bay of Fundy, giving the Can-

Commuters have a certain affection for the dependable old Lackawanna Railroad ferries that ply daily between Manhattan

adian Pacific entry into Nova Scotia and connection with Dominion Atlantic and Canadian National lines. Another steamship route takes the CNR into Newfoundland, which has 811.8 miles of narrow-gage track. The freight and passenger traffic of these great systems, the biggest railroads on our continent, also is carried by churning steamship to Vancouver Island off the western coast.

Still another Canadian example of the railroad navy at work is the Lake Michigan carferry service connecting Muskegon with Milwaukee, which, though operated wholly within the United States, is part of the Canadian National's Grand Trunk Division.

THE RAILROAD was born to a kinship with the sea and so we are not surprised to learn that its navy is almost as old as the railroad itself. The Baltimore & Ohio was founded to drain the wealth of the Ohio Valley into the seaport of Baltimore, Md., while the Erie was established to siphon, among other things, the wealth of that same valley into the port of New York City. The B&O was the first road to lay rails, but the Erie was the first to operate steamboats.

When the Erie was new its tracks ended at Piermont, N. Y., on the west bank of the Hudson, 26 miles north of the island city of New York. To reach the metropolis it had to cross water. And because it could have no rail terminal inside the city, the Erie created for itself, down through the years, a variety of harborside freight terminals and passenger ferryhouses, all around the watery edges of Manhattan—and many an admiring railroader was impressed by the grand job the Erie had done for itself.

New York is basically a seaport. The bulk of its freight traffic is moved by ships into and out of the harbor and up and down the harbor. In order to claim a share of that traffic all railroads in the area had to acquire harborside facilities and fleets of steamboats and barges, just as the Erie had done. But the Erie had already beaten them to it.

The Erie was the first American railroad to boast a navy and to run what the law defines as a "railroad-on-water." And that's no fanciful phrase. It means that the railroad navy is legally part and parcel of the railroad itself. The over-water mileage, the water link, is part of the main line.

It means, too, that the Erie's eastern terminal today is not Jersey City, where the tracks end, but New York City. It means that the Ann Arbor's western terminal is not Frankfort, Mich., on the eastern shore of Lake Michigan, but Kewaunee, Wis., 60 miles away, across the deep lake. And it means that the Western Pacific's main line reaches San Francisco although its tracks terminate at Oakland.

Since the railroad navy is included in the main line, it follows that all of its officers and crews—the railroad marines—are sailors as well as railroaders. In the United States they are protected by the Railroad Labor Act, while in Canada the railroad

Island and the New Jersey mainland. We see one entering Hoboken, loading up, and docking at a slip in New York City.
David Plowden, 1239 Madison Ave., New York City

marines have a similar status. The superintendent in charge of marine operations is, in most cases, an assistant trainmaster as well as a licensed ship's officer, a master mariner.

It's an astonishing fact that railroad marines, taken as a class, rank high among the world's most expert handlers of freight cars. To be sure of this, you have only to visit, for example, the Grand Trunk System's boatyard at Muskegon on the eastern rim of Lake Michigan.

There the ships and the freight trains come and go in slick unison, responding to the orders of a train dispatcher who ties their movements together in a single, integrated operation.

An arriving ship discharges her four cuts of cars. They roll directly to the yard, and twenty minutes later they're trailing a locomotive down the rails that leads to Canada. An arriving train is taken over by the marines, who classify it by weight and swiftly reshuffle it, for the load must be balanced carefully aboard ship. The reloading of a ship is begun the minute that east bound cars are down the apron and out of the way.

Day after day, and more than once a day, as three ships move in and out in orderly procession, the four neatly-balanced cuts of cars roll across the apron to the car deck, through the vessel's stern, and are spotted on the four stub tracks at surprising speed. This is done with the smoothness of railroading raised to a fine art.

Now and then, on rare occasions, there's a slipup. It happens on all kinds of jobs. Last January, for instance, a Lackawanna carfloat dumped half a dozen perfectly good boxcars into New York City's East River. Nobody was hurt, but the newspapers played it up. Someone had forgotten to place the chocks under the car wheels, and a swell had started them rolling.

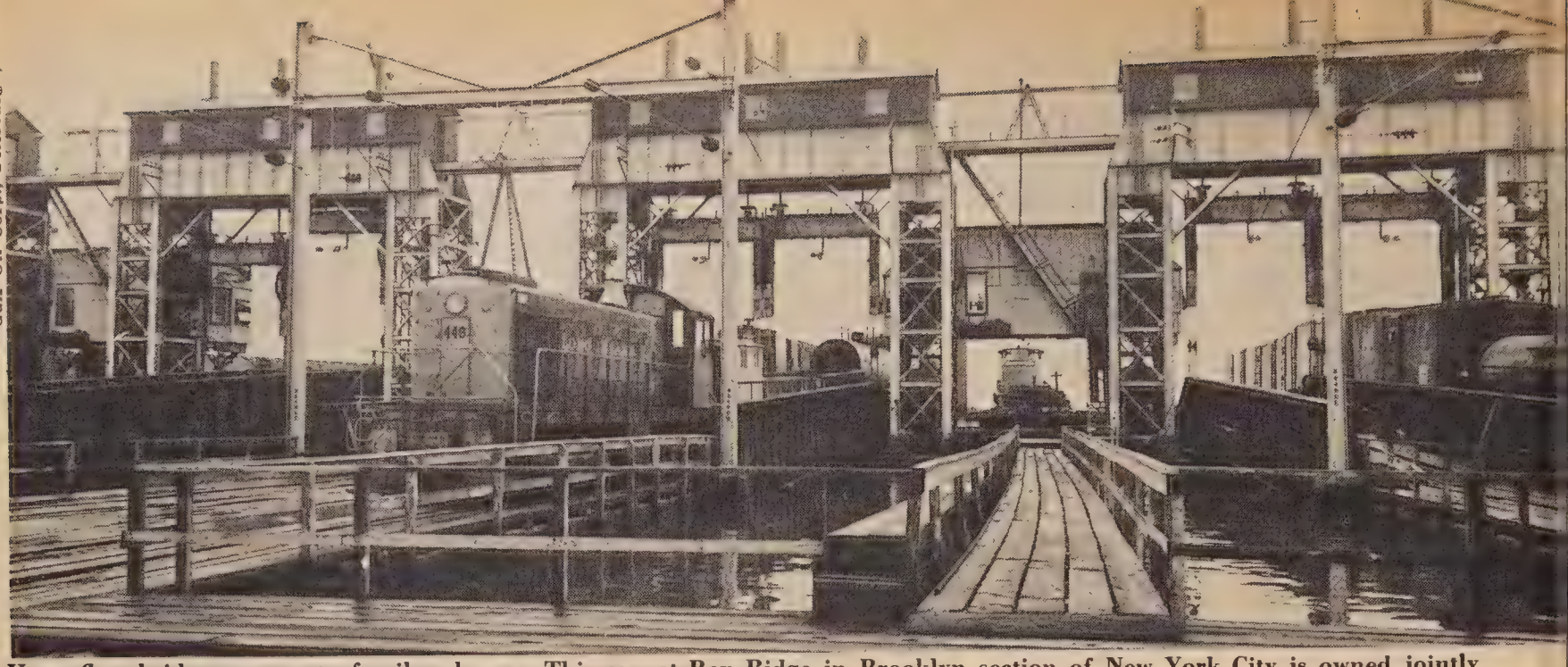
Reminds us of the old joke they tell about a boomer switchman who was lining up a freight train in a yard at night. The boomer calmly signalled for two more cars. The first two had gone into the river!

IT WAS the ironic triumph of passenger ferries that they built up thriving communities across the water from big cities—and some of them met defeat at the hands of those same communities, which had since grown rich enough to build tunnels and bridges.

Today the old passenger-train ferries are but a memory. They could not live in the same world with competitive bridges and tunnels. Their final disappearance from the yellow flood of San Francisco Bay jolted the city that once had been the "ferryboat capital" of the world. As recently as 1930, in fact, fifty ferryboats were operating on sixteen different routes across the bay or the Golden Gate, and during that year alone they carried forty million passengers and six million motor cars in and out of San Francisco.

But for New York the demise of the Erie ferries was little more than a newspaper story. For months the

Gulf Oil Corp., Pittsburgh, Pa.



Huge float-bridges are part of railroad navy. This one at Bay Ridge in Brooklyn section of New York City is owned jointly by the Long Island Rail Road and the New Haven. A similar structure at Greenville, N. J., is operated by the Pennsy.

Erie had been running its trains into and out of the Lackawanna's terminal at Hoboken, N. J., and Erie commuters had grown accustomed to crossing the river by Lackawanna boats. Doubtless, though, many an oldtimer felt a nostalgic pang over the fact that the Erie ferry-house in Jersey City, well and affectionately remembered, would soon vanish.

The newspaper accounts mentioned an old gray and white seagull known as Marmeduke, who maintained a lone vigil at the Jersey City ferry-slip and whose life mission apparently was to scream at arriving and departing boats and harass the crews with a torrent of invectives.

There's an old tradition of the sea—and New York is forever a salt-water town—that gulls embody the souls of men returned to the scenes of their misdemeanors. By that token, at least one Erie captain is mighty sure that back of Marmaduke's screaming and wheeling was the troubled spirit of Jim Fisk, who, just under a century ago, robbed the Erie in a big way and carried his loot across the Hudson to New Jersey—one million dollars packed in a suitcase! On that occasion Fisk crossed the greenish-blue river in an Erie ferryboat.

Underwater railroading: H. J. Herbert, a diver and B&B helper on the Louisville & Nashville, is sent down periodically to check for damage to sea-washed timber trestles caused by several varieties of wood-devouring marine pests on Gulf Coast.

M. J. RoBards, L&N Employes Magazine

As old fleets go, new fleets appear—and today's most interesting one is the tough squadron of 33 vessels that the Southern Pacific, a year or two back, threw into its battle with the Great Salt Lake. Second only to the Dead Sea of Palestine, famed in history and legend, this lake is the saltiest body of water on earth. The tugs, of necessity, were built solidly to combat the corrosive salt as well as the hardness and weight of the water.

The rest of the lake fleet are earth-movers—two different types of glorified barges, both of the heaviest construction. Their purpose is to help build the huge causeway that's to replace the railroad's 13-mile wooden trestle across a narrow part of the lake.

One type of barge carries 3,600-

ton load of rock which, when her bottom drops out, is discharged straight downward. The bottom is a system of trapdoors that fly open all at once when the craft is carefully spotted. The tonnage drops—in the proverbial "nothing flat"—while the vessel herself shoots upward nine or ten feet!

Such earth-movers are useful only in deep water. After the sub-surface rocky pile-up has risen to within fifteen feet of the surface, the other type of barge takes over the job. Type number two carries a much smaller load, all on her flat-top deck. She also carries bulldozers, which go rooting up and down and across the deck like maniacs, shoving her cargo of rocks over the side.

It's a bit nerve-wracking to watch the bulldozers. They get back of a huge mass of earth and rock and muck, full-power. As the rubble goes overboard with a mighty splash and resistance ceases, the bulldozers inevitably spurt forward and stop suddenly, as a rule, with their blades three or four feet over the edge! Sometimes they even overlap the side by a foot or two.

But the operators don't worry. They, too, are railroad marines. They tell you that, after all, only one bulldozer has ever followed the rocks all the way over the side into the saline water of the lake.

NOT LONG AGO the Reading Railroad called in a naval architect to see what was wrong with its fleet of six tugboats on the Delaware River. The expert worked out the cost of basic repairs at $900,000—any by *basic repairs* he meant only those that the vessels would need to keep their Coast Guard licenses. But all six boats were "repaired" with four new ones.

So the Reading's Philadelphia fleet was reduced numerically by one-third. But the shrinkage was more than offset by a threefold gain in the fleet's effectiveness. All six of the ancient boats, by operating 24 hours a day, could finish nicely an average day's work of transferring 300 freight cars across the Delaware, chiefly between Philadelphia and Camden. But the four new tugs can move 300 cars in exactly eight hours, and by working a little overtime in the heavy-traffic season they can prevent the piling up of freight that used to occur in the boatyards whenever the daily workload ran above average.

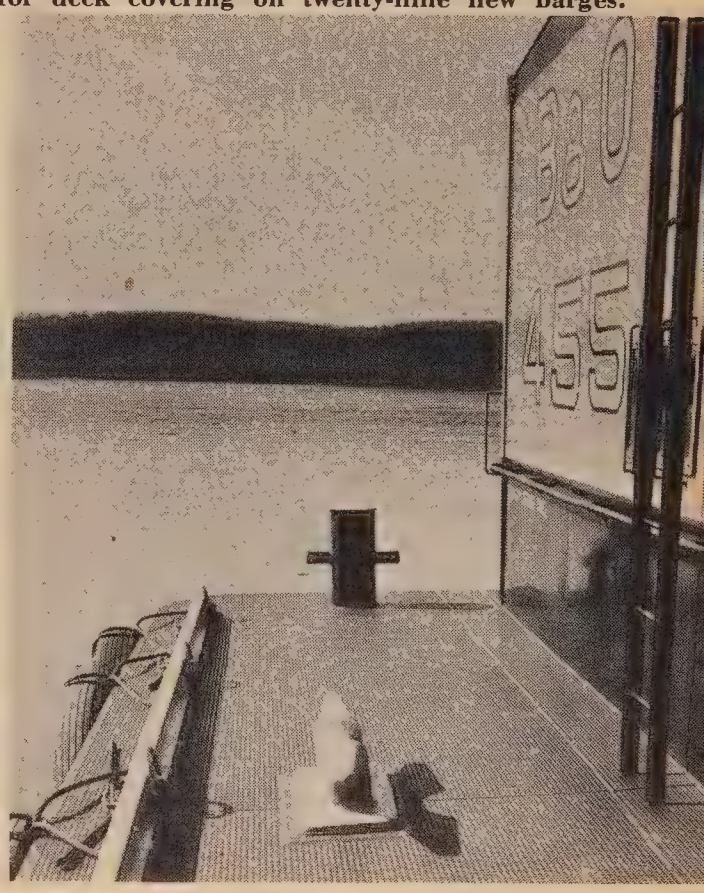
The important thing about the Reading fleet is not that it has grown smaller but that it is stronger and is now three times as useful as it was before. To get the best service out of its tugs, the Reading also blew itself to a whole new complement of much bigger—and therefore fewer—carfloats. At latest reports, they are doing rather well.

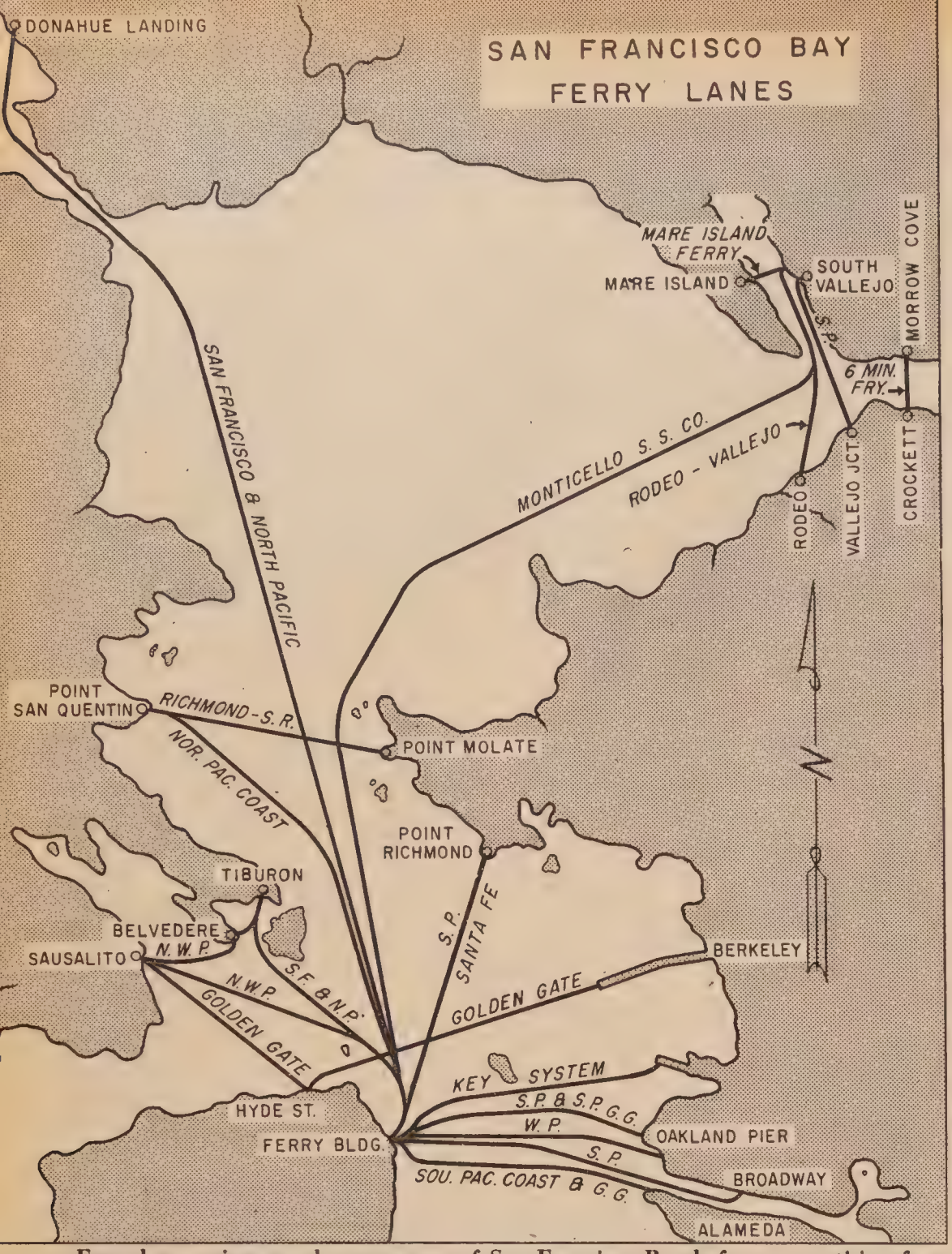
Nor is the Reading's experience unusual. A year or two earlier, in New York Harbor, the Lehigh Valley likewise had replaced six tugboats with four, with similar results. The four are doing three times as much work as the six did. And that story has been repeated on the Great Lakes and on the West Coast as well as in the East. It's the most significant fact about the railroad navy today.

And there's another point: If the workload were not increasing, would the railroads—in the two examples given—have followed a 4-for-6 replacement formula? Since two of the new tugs develop the same power as six of the old, it is fair to assume that a 3-for-6 formula would have offered a better bargain. But marine experts say that the stepup in the overall power of the fleets was called for. It follows, perhaps, that at least in the area of freight transportation the railroad navy is prospering.

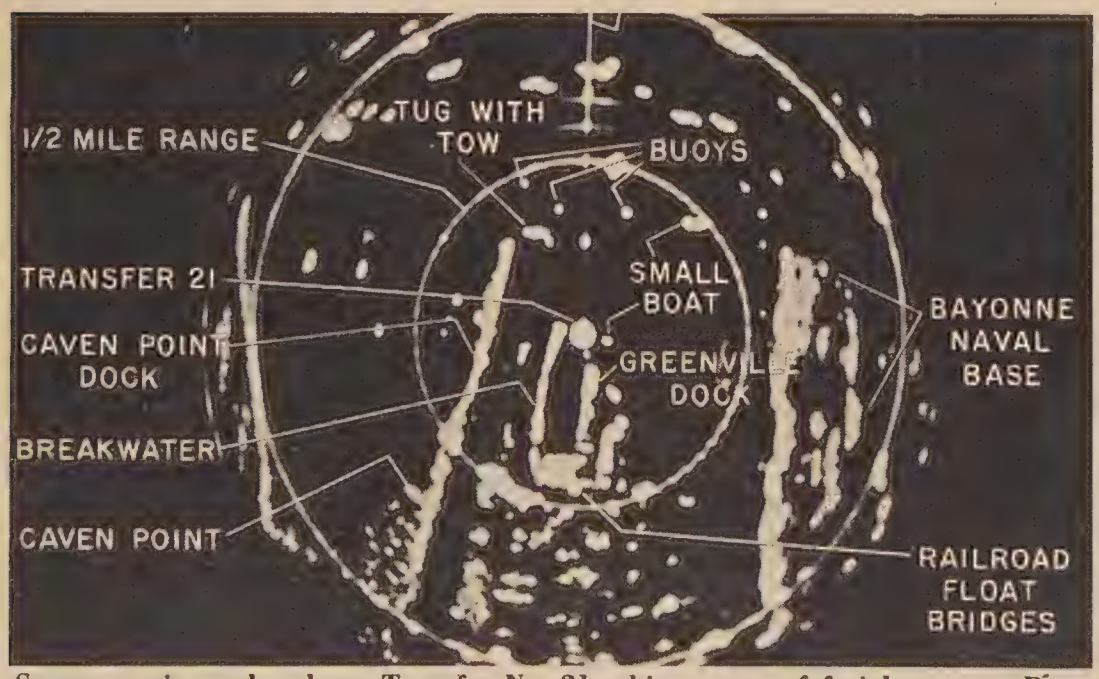
With the Baltimore & Ohio Navy in New York Harbor: (Left) The tug *W. L. Price* moves carfloats from the Jersey Central waterfront in New Jersey to the big city. (Right) Deck hands can find sure footing, even in foul weather, because of the raised checkered pattern that the Jones & Laughlin Steel Corp. rolled for deck covering on twenty-nine new barges.

Via Port of New York magazine

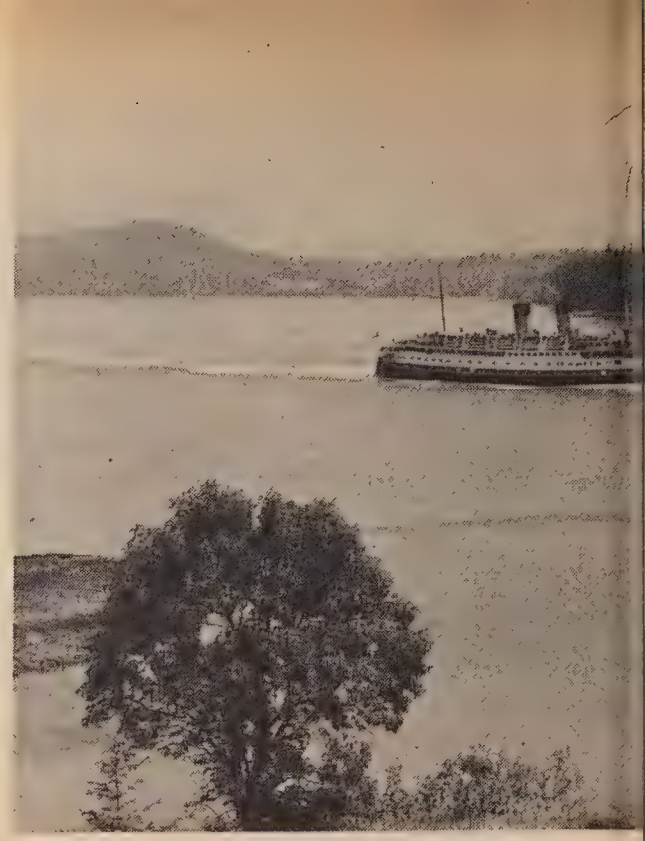




Ferry lanes crisscrossed many areas of San Francisco Bay before competition from the Golden Gate and Bay bridges wiped the last passenger ferry line off the map.
Southern Pacific Bulletin



Sperry marine radar shows Transfer No. 21 taking cargo of freight cars to Pennsylvania Railroad terminal at Greenville, N. J. (Outer circles is one-mile range.)



Canadian Pacific steamship *Marguerite* en route between Vancouver and Victoria, B.C., and Seattle, Wash.

DIESEL power accounts for much of the gain. Comparatively new on land, this power has been driving marine engines for many years. In 1924 the Pennsylvania Railroad commissioned its first diesel-powered tugboat, the Erie coming second.

One dramatic gain was in the time-cost of refueling. Take the case of a steamboat requiring twelve tons of coal a day. She was out of service for a substantial part of every 24 hours while voyaging to and from the coaling dock, blowing out her tubes, and having tons of ashes hoisted out of her hold—woe to any man who dropped ashes into a harbor!—and while her water tanks were filling up and while she was recoaling. But the diesel jobs, even the earliest ones, refueled but once a week. A modern craft carries enough fuel and lubricating oil to keep her running 24 hours a day for as many as 61 consecutive days.

Radio and radar also have brought about huge gains in the over-all efficiency of fleet operations.

Back in the late 1920's, radio first enabled the railroads to apply the principles of train dispatching to their water-borne units. The saving of tugboat time and power by this means alone, according to Marine

Canadian Pacific Railway

Department men, has passed beyond their ability to count.

In the old days there had been no way to change the running orders of a tugboat captain except by sending a faster tug in pursuit of him. Today, with radio dispatching, it's standard practice to assign the next job to a tugboat skipper before the old job is finished, to change the destination of a carfloat or coal barge while the tow is in mid-course, or even to direct a captain in mid-stream to turn over part of his tow to another tugboat.

In 1947 both the Pennsy and the New Haven took up radar. Up till that time fog had a way of halting tugboat operation, sometimes for three or four days at a stretch. The railroads paid dearly for that. Freight piled up in the boatyards and on the sidings for as much as 100 miles back from the coast.

That never happens any more. Today, no matter how thick the fog, the tugboat fleets continue to move, and the freight goes through to its destination with hardly a pause.

Yes, the passenger ferries are sailing into the sunset, but the rest of the railroad navy faces a bright future. With modern carfloats and giant barges, with radar and radio dispatching, and bigger and better tugs and trainferries, the navy continues to knife its way through billowing waves and howling gales. ●

When ice piles up in Northumberland Strait between New Brunswick and Prince Edward Island, the Canadian National's *Abegweit*, world's mightiest icebreaker, plows through. Her capacity is 19 railroad cars, 69 automobiles, and 950 passengers.

Canadian National Railways

Painting day on an Erie tug. The Erie was the first railroad to operate a navy.

Erie Railroad

Mountain Type Engines

Although the 4-8-2's Originated in New Zealand, They Became America's First Truly Modern Dual-Purpose Locomotives And Deserve a Bright Spot in the Annals of the Steam Age

by H. L. Kelso

OLDTIME FIREMEN, including your author, remember endless hours of feeding locomotive fireboxes by hand, with a scoop shovel, when you really earned your pay. That occurred some years ago. Let's go back to Phillipsburg, Kansas, shortly before the first world war.

A favorite sight around Phillipsburg in those days was the fast and flossy *Rocky Mountain Rocket,* whose Chicago and St. Louis sections pulled out of town separately and proudly, each section consisting of from five to eight big, comfortable, steel cars powered by a light Pacific.

Small boys and town loafers gathered at the depot to watch them leave. The conductor's stentorian "All aboard!" was succeeded by a haunting whistle scream, and driving wheels took hold of the rail. A magnificent white smoke-plume filled the onlookers with ecstasy.

If you were bailing coal into those 4-6-2's you didn't work too hard to keep up steam on the long run to Denver and Colorado Springs. But one day you looked in vain for a Pacific tied to the *Rocket.* Instead, you saw a new and larger engine, one of the Rock Island's first 4-8-2's, which pulled *both* sections out of Phillipsburg. The town loafers gasped and gossiped.

Those engines were one-third more powerful than the Pacifics but still scoop-fired. They were called *Mountain* types because the original 4-8-2's to operate in America had made their debut by bucking Blue Ridge and Alleghany mountain grades on the Chesapeake & Ohio two years before.

The appearance of 4-8-2's at Phillipsburg evoked mixed feelings of dismay and admiration in the enginemen on that division. Firing one of them gave you plenty of exercise. With ruling grades of one percent on the Rock Island, a single Mountain could handle as many as nineteen cars, 1175 tons. Usually, though, she didn't. Consolidation of the *Rocket's* two sections saved the company 180,000 miles of train operation per year.

In 1920 the Rock Island bought some larger 4-8-2's and this type became its finest passenger power. Built by the American Locomotive Company, the new locomotives boasted such modern appurtenances as the Baker valve gear, thermic syphon, Alco power reverse gear, and Woodward engine trucks. Although hand-fired, they were designed for the application of automatic stokers should the need arise.

Many of us who recall the period when 4-8-2's wheeled the *Golden Gate* out of La Salle Street Station, Chicago, regard this type as America's first truly modern passenger-hauler. The 4-8-2 has a four-wheel leading truck, seen directly under the firebox and cylinders, followed by

four pairs of driving wheels and a two-wheel trailing truck beneath her cab. The C&O's first 4-8-2's, built by Alco in 1911, were relatively low-wheeled (62-inch drivers) but they rated a huge tractive effort of 58,000 pounds and could exceed 70 miles per hour with heavy passenger trains. Later, when fast freights became more important to the C&O than heavy-tonnage drags, they were assigned also to merchandise runs.

Those earliest American 4-8-2's were the world's heaviest non-articulated steam engines, outweighing even the huge 2-10-2's that the Santa Fe had put into service in 1904. They were unusual in that their main rods were connected to the third—rather than to the second—set of drivers and to the rear of the cylinders. An articulated locomotive, as you know, is a hinged machine built on the bob-sled pattern. All others, including the 4-8-2, are rigid-frame locomotives.

In 1908 the New Zealand Government Railways began operating the very first 4-8-2's on the globe. Designed by Alfred Luther Beattie as four-cylinder balanced compounds (de Glehn system), they were built at the Addington Shops in New Zealand for the 42-inch-gage line on North Island. Then in 1943 they were rebuilt as simple engines, retaining the four cylinders. Some remained in service at least as late as the mid-fifties.

Not long afterward, trim 4-8-2's were designed to run on 50-pound rail, were semi-streamlined after the fashion of the Southern Pacific's "sky-line casing" types. They were built by the North British Locomotive Company, which also turned out some 4-8-2's for the Natal Government lines in South Africa in 1909 or 1910. Even today, modern Mountain types are burnishing the rails of New Zealand.

Turn now to the Central of Peru, in South America, which touches the highest point reached by any standard-gage railroad, 15,806 feet above sea level. This road hopefully bought five Mountains in 1925 for service over the lofty Andes. These engines

Pennsy's all-time roster shows 301 Mountain types. This was No. 6736 at Rockville, Pa.
Don Wood, 29 Mt. Haven Drive, Livingston, N. J.

Photographed by the author at Woodford, Calif., in 1946

Southern Pacific Nos. 4352 and 4353, shown pulling the *San Joaquin Daylight*, had "skylight casing" with smoke deflectors.

were not suited for grades up to 4 percent, their factor of adhesion being so poor that they slipped badly. Sometimes the trains pulled them backward down the grade! Naturally, this harrassed the engineers, who would vent their wrath on the poor firemen. The story is told of one hogger who stopped his train at a lonely spot, beat up his fireboy, tossed him out of the cab, and left him there alone.

Many European countries, particularly France, Russia, and Spain, have given much attention to the 4-8-2. Although the 4-8-4, or Northern type, ultimately dimmed their luster in Europe as well as in North America, we do not know of any performance records that show the 4-8-4 to have been superior. One French 4-8-2 was rebuilt into a Northern type and given sensational publicity, but nothing important ever came of her.

The 4-8-2 also had her day in a long list of other countries, including the Philippines, Argentina, Chile, Brazil, Alaska, and even Java. But her record in North America, where she blazed a trail of glory, has the greatest interest for our readers.

IN CANADA, the 4-8-2 was used extensively on the Canadian National but was not popular with the Canadian Pacific. A 1947 listing of Canadian National Mountains numbered 6000 through 6079 fails to show a 6059. This omission is odd. Maybe some reader can explain it. The last twenty CNR 4-8-2's, built by Montreal Locomotive Works and semi-streamlined, were known as "bullet-nosed Betties." Five Canadian National engines, 6037 through 6041, ran under the banner of the Grand Trunk Western out of Chicago. All had 73-inch drivers.

William J. Parry, one of Canadian National's outstanding hoggers, now retired, says the fastest run he ever made was on the *Great War Veterans Special* with engine 6004 and twelve heavy steel cars. Despite stops at Glencoe for water and orders, he coyered the 110 miles between Windsor and London, Ont., in 105 minutes.

We learn from L. H. Homer of Battleford, Sask., that Canadian National 4-8-2's handled the *Transcontinental Limited* through the Rockies regularly with a consist of 18 cars, sometimes as many as 24. Presumably more than one 4-8-2, perhaps three, powered the train over the big hills.

During the roaring forties the *Ocean Limited* and the *Scotian*, both rolled by 4-8-2's, were Eastern Canada's fastest trains, their top speed having been clocked at 70 mph with 17 cars. They ran 105 miles non-stop between Campbellton and Mt. Joli, and 114 miles non-stop between Riviere du Loup and Levis. Total mileage, 841, was made in 23 hours and 25 minutes, an average of 56 mph between stops!

According to Fred Sankoff, noted Canadian railway photographer, the Canadian Pacific owned two Mountains, both built at the road's Angus Shops (Montreal) in 1914. One was scrapped in 1944, the other in 1945.

REMEMBER when the Seaboard's *Palmland* was pulled by a speedy 4-8-2? We can visualize it now, glid-

ing smoothly past sand dunes and over trestles, with color and fascination, trailing a squirrel-plume of pungent smoke. What a sight! What a memory!

One of the Seaboard's superb 4-8-2's, No. 263, covered 18,790 miles in January, 1938, with the *Orange Blossom Special* running between Richmond, Va., and Jacksonville, Fla., with an enviable "on time" record. If space permitted, we could tell of other 4-8-2 engines successfully hauling such famous trains as the Great Northern's *Empire Builder*, the Frisco's *Texas Special*, and the New York Central's *Mohawk*.

We cannot forget the Pennsylvania's mighty 4-8-2's, of which 301 graced the all-time roster. The last 100 were designed for dual service. It seems, however, that the publicity given the Pennsy's K4's (4-6-2's) and numerous experimental locos has robbed the mighty Class M-1 Mountain types of their rightful place in the sun on the Keystone Road. No more efficient 4-8-2's ever roamed the rails anywhere.

Recorded history has failed, for the most part, to give the 4-8-2 its just due. The Northern and Hudson types came at a time when the States and Canada were making what we like to call sensational progress. The additional pair of trailing wheels under the Hudson and Northern dampened the 4-8-2's popularity and glamor. But not all of the keen motive power men were "taken in" by the four-wheel trailing truck. Those trucks actually supported larger fireboxes but, according to many records, did not make the newer engines superior in performance and maintenance to those, like 4-8-2's, with two-wheel trailing trucks.

Neither the Illinois Central nor the Southern ever owned a 4-8-4. The IC had a single 4-6-4, one of the very few locomotive types that was unsatisfactory during its entire history. On the other hand, both roads used 4-8-2's to great advantage in the halcyon days of steam.

It is our belief that the Southern's 4-8-2's, resplendently painted green and gold, were the most beautiful and best-kept engines that America ever knew. Moreover, they could—and did—wheel heavy passenger trains at speeds up to 80 mph, mile after mile.

Among them was No. 1456, whose engineer, David J. Fant, won renown as a preacher of the Gospel as well as a railroad man. In those days, the Golden Age of Railroading, a hogger could use his own discretion in embellishing the engine to which he was assigned permanently. Fant adorned the front of his smokebox with the likeness of an open Bible and the words, "Thy Name Is Truth," and wherever he went he expounded his faith to all who would listen.

No. 1456 has long since gone to the blow-torch, but the religious emblem from her smokebox is nailed today to the modest house in Atlanta, Ga., where the great evangelist-engineer, now retired, is living out his sunset years.

Coming back to the Illinois Central, we learn that its roster had a total of 136 Mountains. This road rebuilt 56 slow, powerful 2-10-2 freight hogs into fast, rugged 4-8-2's, besides building twenty new Mountains at their Paducah Shops in 1942-'43.

All of this came to pass during a period when the Northern type was in its ascendency! Alco and Lima had already outshopped a total of 76 previous 4-8-2's for the IC. This type was a significant factor in keeping the Illinois Central a steam road years after many others had gone all-out for diesels.

GO NOW to the Pacific Coast, especially to California, where the 4-8-2 was long a familiar and welcomed sight. Consider first the Santa Fe's 3700's. Two engines, Nos. 3700 and 3701, came to the road from Baldwin in 1918 and performed so well that 49 more were ordered. Those 49, which hit the rails between 1919 and '24, were identical in design except that some burned coal and others oil. With 69-inch drivers, they never became speedsters.

Photographed by Don Wood in 1956

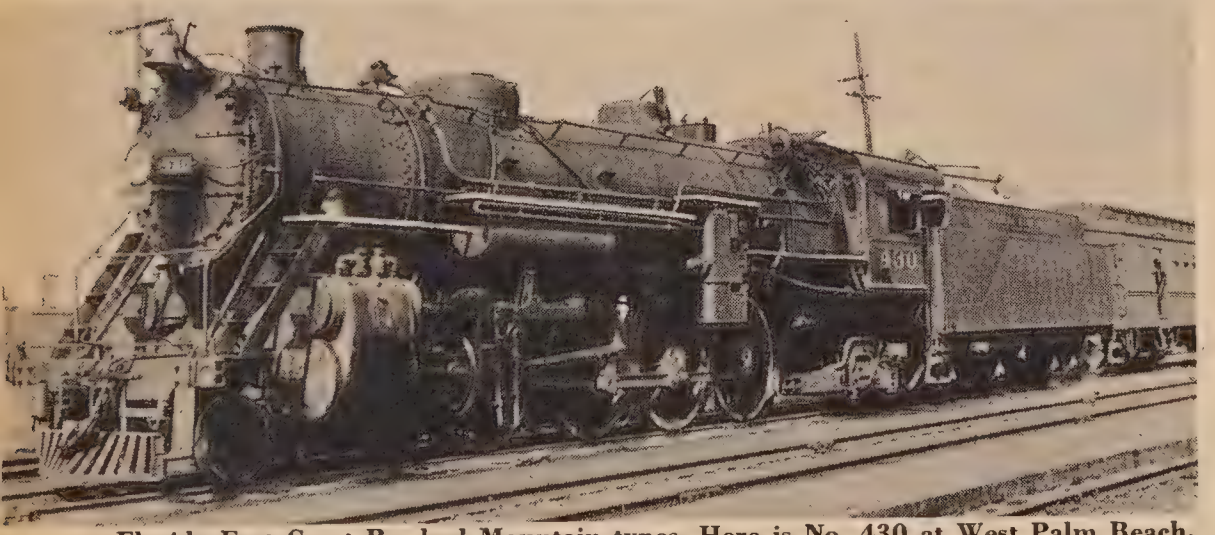
And so to bed! After long run from Altoona with 130 hoppers of coal, Pennsy 4-8-2 No. 6755 heads into roundhouse at Enola.

No. 405, Mountain type on the now-extinct New York, Ontario & Western in 1946.
Stephen D. Maguire, 1411 River Rd., Belmar, N. J.

Gerald M. Best, 511 N. Sierra Drive, Beverly Hills. Calif.

UP No. 7854 with one of 12 sections of *Shriners' Special,* all pulled by 4-8-2's.

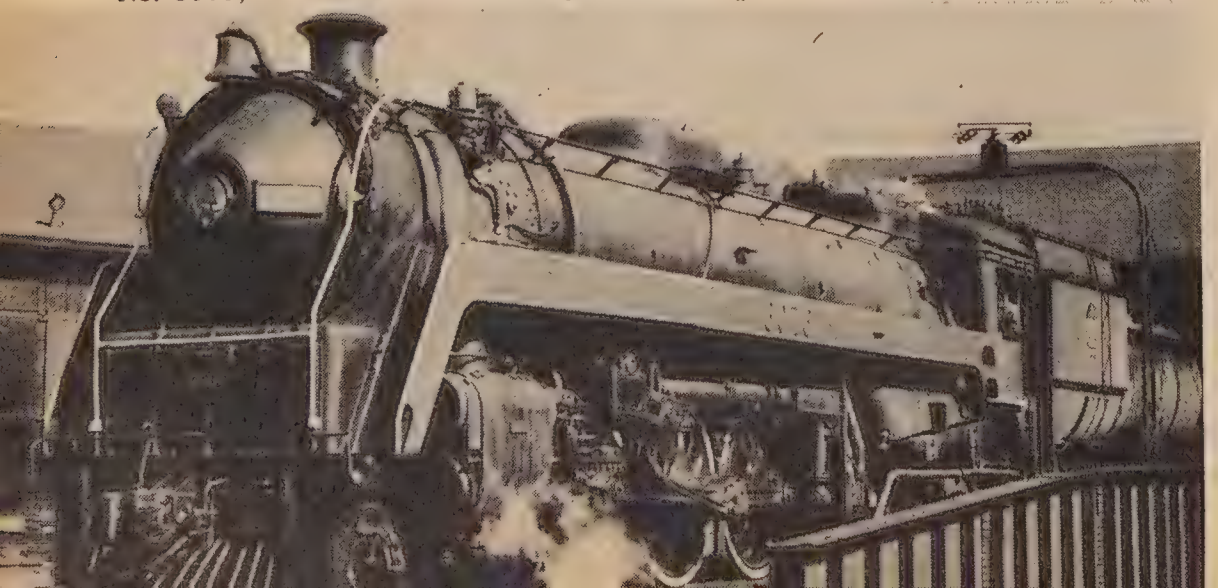
Photographed by Stephen D. Maguire in 1941



Florida East Coast Ry. had Mountain types. Here is No. 430 at West Palm Beach.

Photographed in 1958 by David Plowden, 1629 Madison Ave., New York City

No. 6076, one of the few CNR engines with cap stacks, at Niagara Falls, Ontario.



"On June 22, 1930," wrote David Chase, "when I was a passenger on the Santa Fe's westbound *Navajo,* we ran out of water at Acomito, N. M. I don't know why. At any rate, the *Scout,* following us with engine 3719 (a 4-8-2) and the steel cars, coupled onto our rear coach and pushed us into McCarthy, five miles westward. There we took on water. Thus No. 3719 demonstrated that at least one of the Santa Fe's Mountains was fine and efficient."

Knowing the Santa Fe as we do, we opine that two advancements were made on the seniority board as a result of that incident. The lack of water evidently was due to a faulty hose connection between locomotive and tender. No Santa Fe crew would have failed to take water in desert country. Does any reader know the real story of why the *Navajo* ran out of water at Acomito? It would be interesting to know.

A unique event occurred in 1933 when the Union Pacific ran a *Shriners' Special* in a dozen sections between Los Angeles and Las Vegas, the gambling capital of America. The first train left L.A. behind engine 7850, the second behind 7851, the third behind 7852, and so on, all 4-8-2's in numerical sequence! Section 12, with No. 7861, ended the big parade. This record has never been matched. (Photo on this page.)

The UP had on its all-time roster 80 Mountains, with 73-inch drivers, all built by Alco between 1922 and '24. One of them, No. 7002, was streamlined handsomely to haul crack passenger trains over the Western prairie.

Most of Southern Pacific's 4-8-2's were built in its own Sacramento Shops, but the first 28 came from Alco between May, 1923, and December, 1924. The system put its seventy-seventh Mountain into service in March, 1930. Adding to these the five engines Alco built for the El Paso & South Western, a road taken over by the SP, we find a total of 82 Mountains on the all-time roster. Here are some specifications of 4-8-2's on (1)UP, (2) Santa Fe, (3) SP, and (4) EP&SW:

Three-way Canadian National passenger-train meet at Guelph, Ontario. The Mountain type locomotive at left is No. 6014.
Photographed by Don Wood in 1958

	Cyls.	Dri. Dia.	B.P.	Weight	T.E.
(1)	29x28	73"	200	360,250	54,383
(2)	28x28	69"	210	355,760	56,800
(3)	28x30	73"	210	368,000	57,510
(4)	29x30	73"	210	391,000	61,690

THE MOUNTAIN type answered the demand for a locomotive to move heavier trains at higher speeds and less cost in dual service. Consider the 25 Baldwin-built Class M-1's that the Wabash put into service in 1930. These locos, each weighing 406,400 pounds and having 27x32-inch cylinders and 70-inch drivers, began to replace the Mikados (2-8-2's) as fast as Baldwin delivered them. Tests proved that the Mountain had a 22.6 greater capacity for tonnage, made better time, and earned 23 percent dividend on the investment.

It would not be fair to compare the new with the older, lighter 4-8-2's because the new ones had Standard BK stokers, Worthington feedwater heaters, Nichols thermic syphons, and other money-saving devices. As time passed, the Wabash retired many older engines and relegated its 2-8-2's to secondary trains, but all Wabash 4-8-2's kept working until

Fred Sankoff, 25 Botfield St., Toronto, Canada

Canadian National engine 6003, a 4-8-2 type, starts up the hill at Bayview, Ont., with train 77 en route to London in 1957.

the diesels took over—a fine record!

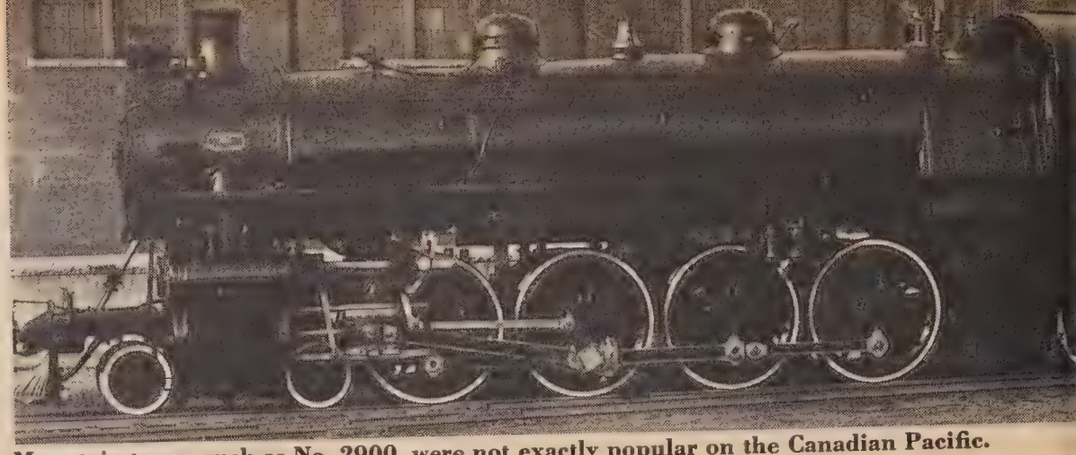
Give the Missouri Pacific credit for having used the 4-8-2 with the highest drivers in the type's history. In 1939 this road rebuilt seven light U. S. Railroad Administration 4-8-2's with 69-inch drivers at its Sedalia Shops into fast oil-burners with 75-inch drivers. The rebuilt jobs had Baldwin discs, Timken roller-bearings on all engine axles and SKF bearings on the six-wheel tenders, Walschaert valve gear, streamlined pilots, and retractable couplers.

These engines paid off in a big way. By 1941 they were turning in a monthly average of 15,000 miles. Their previous record had never been far above 5,000!

Baltimore & Ohio first tested the 4-8-2 in 1925 by rebuilding a 2-10-2 into a trim 74-inch-wheeled speedster to haul passengers over mountain divisions. So successful was the job that another engine of the same type was converted for similar service. In 1930 the B&O added two Baldwin 4-8-2's to its roster.

But this type was slow taking hold on the B&O. Not until 1942 did the company really appreciate it. The Mt. Clare Shops then became a beehive of activity. Old 2-8-2's, 2-10-2's, and 4-6-2's emerged as Mountains. Between 1943 and '46 twenty more engines were rebuilt into 4-8-2's, and in 1947 ten new Mountains rolled out of the shops.

In 1947, too, the B&O bought 13 huge 4-8-2's from the Boston & Maine, which was fast being dieselized. The ex-B&M engines, becoming Nos. 5650 through 5662, promptly began hauling B&O freight. As late as 1952 the Baltimore road had 56 Mountains on its active list.



Mountain types, such as No. 2900, were not exactly popular on the Canadian Pacific.

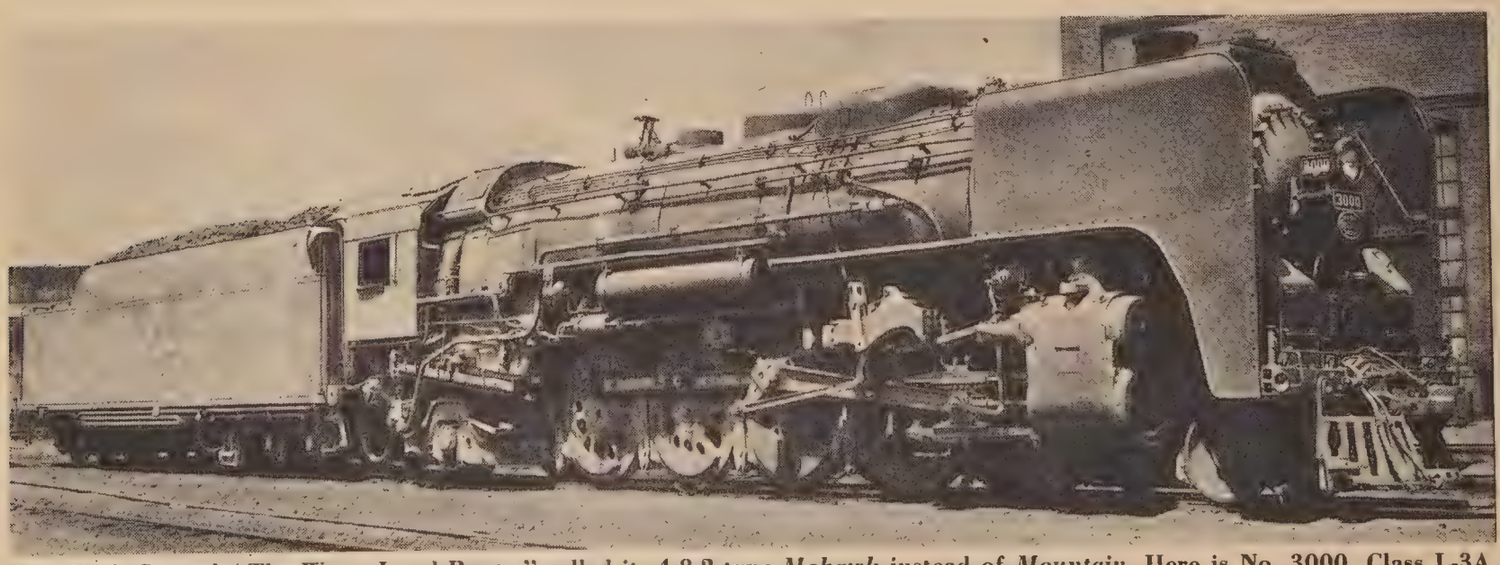
Many big systems, including the Northern Pacific, the Chicago & North Western, and the Milwaukee Road, never owned a 4-8-2. The Erie chose 2-8-2's and 2-8-4's for freight-hauling and stayed with the old 4-6-2 for passenger power in its days of steam. Oddly enough, the Great Northern, whose operating problems were identical with those of the Milwaukee and the NP, assigned Mountains to its best passenger trains.

Among the relatively small roads which used Mountains are the Bangor & Aroostook, the Rutland, the Soo Line, the Western of Alabama, the Florida East Coast, and the Western Pacific. The WP's 4-8-2's came from the Florida East Coast, which sold other Mountains to the Cotton Belt.

The Lackawanna listed the heaviest 4-8-2's of them all, but the Lehigh Valley's 4-8-2's were, perhaps, the only three-cylinder Mountains to run in America. The Frisco also had some fine 4-8-2's that paid dividends. Nor must we forget the Norfolk & Western's 4-8-2's, which were the most expertly streamlined engines of the type.

ONE 4-8-2, the New York Central's 2873, shrouded in the fashion of the bathtub-appearing *Commodore Vanderbilt,* powered the twelve car *United Drug Company Special* which toured the States in 1936. Another Central 4-8-2, No. 3001, is being preserved in Texas, and here is the story:

One of the Texas & Pacific's last steam engines was donated to the State Fair Association in Dallas for what was intended to be permanent display on the grounds. Alas, in a public spot with no protection from souvenir-snatching railfans, this noble specimen was vandalized so shamefully that she became useless as an exhibit! Bitter protests caused the Fair officials to seek to replace the wrecked engine. But by that time



New York Central, "The Water Level Route," called its 4-8-2 type *Mohawk* instead of *Mountain.* Here is No. 3000, Class L-3A.

From photo collection of Fred Sankoff

the T&P had no more steamers, so the Fair bigwigs were in a bad spot with history-minded citizens.

At length they managed to buy the Central's 3001, which, after alterations and a new paint job in T&P shops, appeared on the Fair grounds disguised as a retired Texas & Pacific locomotive. You can see her there today—but don't take along a monkey wrench or chisel. The old 3001 is well guarded!

In referring to NYC 4-8-2's we drop the word *Mountain* and say *Mohawk.* The Central did not feel that the commonly-accepted name was fitting for locomotives used on a "Water Level Route," so it substituted one with regional significance. New York Central 4-8-2's were, in fact, the only engines of the type on our continent known by any other name than *Mountain.*

If you have followed this series of articles on locomotive types, you may recall that the Central's Paul W. Kiefer helped to originate the Hudson (4-6-4) engines. Credit him also with having done much for the beauty and efficiency of the Mohawks.

There came a time on the Central when its Atlantics, Pacifics, and a stud of 275 exciting Hudsons could not adequately handle the increasing passenger traffic. Class L-2 Mohawks were hauling freight, but their top speed allowance on passenger runs was only 60 mph. This figure was too low for a road that competed with the autocratic Pennsy for speed records between New York and Chicago. To meet traffic needs, Mohawk types numbered 2995 and 2998 were rebuilt for dual service. Their performance was such that they became prototypes for later 4-8-2 classes L-3a and L-3b.

The most recent later Mohawks carried 43 tons of coal but, due to track pans for taking water on the fly, only 15,000 gallons of water.

Whether you call them Mountains or Mohawks, it should be plainly evident, from the fragments of information we have set down here, that the 4-8-2's deserve a much brighter spot than historians have given them in the glowing annals of the Steam Age. ●

A rare shot. Don Wood caught these two Pennsy Class M-1's from above in 1956 as they blasted out of Denholm, Pa., with a string of hoppers en route to Altoona. Observe the long tenders.

INFORMATION BOOTH

For the first time in history, "piggyback" rides de luxe main-line passenger train. The Chesapeake & Ohio initiated this move with its No. 1 streamliner, *The George Washington*, on the run between Staunton, Virginia and Charleston, West Virginia. The program gives motor carriers faster and more efficient service without interfering with normal passenger schedules.
Chesapeake & Ohio Railway

1 *Coal-shoveling firemen worked hard but how does the modern diesel-locomotive fireman earn his pay?*

A controversial question. Management will tell you that in most cases he doesn't. British Railways, among others, have abolished the job, except on a few long-distance runs, contending that two men in a diesel cab are as unnecessary as two drivers in a bus. Labor disagrees. The following statement by H. E. Gilbert, International President, Brotherhood of Locomotive Firemen & Enginmen, appeared in *Locomotive Engineers Journal:*

Obviously there are no fires to tend on a diesel locomotive, with the exception of steam generators on certain locomotives. However, this does not mean diesels operate automatically, sustain no breakdowns and are not subject to such hazards as fire, explosions, faulty wiring and mechanical failures. Certainly there isn't a machine in existence that can operate without proper maintenance and attention. The diesel engine is a very large, complicated piece of machinery, worth thousands of dollars. The fireman protects this investment and assures proper functioning by:

1. **Making periodic patrols of the engine while en route to ascertain proper working condition and to insure continued power to the engineer.**
2. **Answering alarm signals which denote malfunctions. In many cases the fireman is able to make temporary repairs en route, thereby avoiding delays and the hazards of a stopped train on mainline tracks.**
3. **Finally, the fireman is a skilled diesel engineman. He knows his business and is invaluable in protecting a very expensive piece of machinery from damage or destruction.**

2 *My mother has told me that when I reach the age of seventeen (five years from now) there will not be a single steam locomotive operating in the U.S.A. Is she right?*

It's a safe bet that no live steam will be left on American rails in 1964 except for a few industrial short lines and a few small tourist-attraction roads such as the Black Hills Central in South Dakota, the Edaville in Massachusetts, etc.

3 *Does Western Union own and operate railroad cars?*

Yes, they have 33 on the Southern Pacific, Missouri Pacific, Seaboard Air Line, Atlantic Coast Line, New Haven, Jersey Central, Long Island, Canadian National and other roads where and when required.

They are used by WU's Plant and Engineering Department for maintenance and repair of telegraph lines by crews dispatched in a completely self-sustaining unit comprising sleeping-car, dining-car and tool and material box-cars. At one time the company operated about 200 railroad cars.

4 *Why are rail joints staggered instead of being placed opposite one another?*

If they were not staggered the track would tend to undulate, causing considerable wear and tear on equipment and bumpy rides for passengers. Standards for tracklaying are set by the

ASK BARBARA: **Railroad questions are answered here every issue by our research expert—as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.**

American Railway Engineering Association's *Manual*, which states:

"Rails shall be unloaded opposite the locations on which they are to be placed in the track, with suitable gaps allowed for short lengths. Rails shall be so placed that the joints in each line of rail shall not be more than 30 inches from the centers of the opposite rails and preferably not more than 18 inches. Locotions of joints can best be determined with a steel tape."

5 *Which locomotive has the greatest tractive effort?*

Sy Reich tells us that the *steam* locomotive with the greatest tractive effort is Norfolk & Western's Y5, Y6, Y6a, Y6b classes, numbers 2101-2200, with 152,206 pounds t.e. when operating simple. The *steam-turbine electric* with the most t.e. is N&W 1300, the *Jawn Henry* (retired but not scrapped), 144,-000 pounds.

The *straight electric* with the top t.e. was the Great Northern Class W-1 B-D/D-B units, Nos. 5018-5019, with 183,750 pounds. The *diesel-electric* with the greatest t.e. was Pennsylvania's Class BP-60a Baldwins, with 204,500 pounds each.

The *single diesel-electric* unit with the most t.e. is the Seaboard Air Line's 4500-5413 Class, 104,600 pounds per unit. The *gas-turbine electric* with the greatest t.e. is the Union Pacific's 51-75 Class, 137,900 pounds.

Thus, the locomotive with the most t.e. is the Pennsy's BP-60a's. And the unit with the greatest t.e. is GN's W-1's.

6 *Does the word highball, meaning a drink, have a railroad origin?*

Yes. It can be traced back to the old-time highball signal. A ball raised high on a pole authorized the train to proceed. Gradually the term came to be used in raising a glass of whiskey and soda as a toast.

7 *Were steel rails used as early as the 1860's.*

Yes. The first one was rolled in the United States in 1865. By the 1870's, steel rail had come into extensive use, and by the late '90's it had replaced iron rail almost entirely.

8 (*a*) *Conneaut, Ohio, is the Nickel Plate's home terminal of the Buffalo Division, and yet yard crews of enginemen and switchmen work at Buffalo yards. Why* (*b*) *How does a man in one of these categories qualify for road trips to Conneaut and back?* (*c*) *Can an engineer living at Buffalo hold a regular NKP road job?*

(a) Engineers and firemen of the NKP's Buffalo Division each have one senority roster, and have both road and yard rights which allow them to work in either service, depending on their desires and seniority. (b) To qualify for road service an engineer must make at least one trip every 90 days; otherwise he must make a review trip on his own before he can mark up for road service. (c) An engineer living at Buffalo must work on the road, but since Conneaut is the home terminal, he must deadhead to that point on his own time and take his place in the freight pool or an assigned run.

The handsome face of a Baltimore & Ohio 4-8-2, No. 5574, photographed by Don Wood on a July day in 1956.

Incidentally, Buffalo switchmen have a separate roster from road trainmen and do not have road rights. Therefore, their employment is confined to the Buffalo yards.

9 *If a 40-ton boxcar and a truck of the same tonnage were placed side by side on level track and adjoining highway and given a 60-mph shove, which one would coast further?*

The boxcar would coast five times as far as the truck because far less friction is encountered by flanged steel wheels on steel rails.

10 *Is there a common-carrier railroad in the United States that has only one employe?*

Yes. P. B. C. Smith is the sole operator of the 13.3-mile Emory River (connecting with the Southern), which hauls freight between Mahan and Lancing, Tenn. The ER has one locomotive and no cars. According to ICC statistics, seven roads in this country have but two employes each, and 12 employ a total of 27.

11 *What was the longest run ever made by a steam locomotive without drawing her fire?*

The longest one we know of was

(upper left) Wm. G. Prentice, 41 Chapin Crescent, Toronto, Canada

(Left) An 0-4-0 "street motor." This was a common type built by Baldwin in 1875, first used in Philadelphia and now exhibited at Penang, Ontario. (Right) Who can identify this oldtimer for A. A. Schlieske, 6424 Komensky Ave., Chicago, Ill.?

made about thirty years ago by locomotive No. 4113 of the St. Louis & San Francisco, which completed the remarkable distance of 7,350 miles in 26 days without having her fire knocked. The endurance run might have continued except for a Department of Commerce regulation stipulating that all locomotives undergo federal inspection and go to the shop every 30 days.

During the 26 days of the run, No. 4113 consumed 1,171,466 gallons of water and 1,516,424 pounds of coal, and handled a total of 15,509,812 gross ton-miles. A thorough inspection on completion of the test showed her to be in good condition.

12 *Is it possible to see steam locomotives in Illinois or Missouri?*

We do not know of any active steam in either state, but there are a few inactive steamers at the St. Louis Museum of Transportation in St. Louis County, Mo. (Very soon we will publish a detailed list of retired steam locomotives on display all over the States and Canada.)

13 *What would you call the locomotive shown top, right?*

Walter A. Lucas, former managing editor of the *Locomotive Cyclopedia,* identifies her as an 0-4-0 "street motor," built by Baldwin in Nov., 1875, and tried that year on a horsecar line in Philadelphia. Eventually the car was reconstructed (to overcome vibration) and named *Baldwin No. 1,* then sent to the Citizens Ry. of Baltimore. Orders for similar machines followed, and by 1880, 107 separate motors and 12 steam cars were built.

The difference between a steam motor and a steam car was: the "steam motor" was a separate small locomotive, as shown in the photo, intended for hauling one or more horsecars, while the "steam street car" was built to carry passengers. These cars (or locomotives) were used in Philadelphia, Baltimore, Brooklyn, Cuba, New Orleans and many other cities. Such a car was known as a "dummy" because it was substantially noiseless and showed very little steam while operating.

In later years the name was applied to any small locomotive (used in city service) enclosed with a housing to cover the machinery. This type was used first by the New York Elevated R.R. and eventually by the New York Central on the West Side of Manhattan. The latter were transferred to Syracuse, N. Y., and used until diesel switchers took over.

14 *April Railroad (page 68) mentions the Morse Telegraph Club of America. Is membership open to Canadians?*

Yes. Its name is being changed to Morse Telegraphers International Association.

15 *Are any steam engines stored or exhibited in the state of Vermont?*

Yes, Elwin K. Heath, Barre, Vt., tells us that the Central Vermont has some in storage at St. Albans. They include CV 2-8-O's, 4-8-2's, 2-10-0's, several GT and CN 2-8-2's, a GTW 4-8-2 and several GT 0-6-0's. All are in poor condition and are stored too close to be photographed.

The Rock of Ages Corp., in Graniteville, has the following on exhibition at their quarry: Their No. 6, an 0-6-2ST; the original McKeesport Connecting No. 27; and two ex-Barre & Chelsea locomotives—No. 5, 0-6-2ST and No. 6 (built by Baldwin in 1912). The latter has been repainted and restored, and the name *Hercules* is on the cab panel.

The Shelburne Museum houses CV 220, a 4-6-0 and an old STJ&LC combination car.

Boston & Maine old No. 494, a 4-4-0, is on exhibition at White River Junction, near the Municipal Building, placed there by the Railroad Enthusiasts of Boston, Mass.

16 *What is 52-pound rail?*

Rail weighing 52 pounds per yard.

17 *When and where was the original rail-flaw detector car used?*

The first field test of Dr. E. A. Sperry's detector car took place on the Wabash in Nov. 1928. It revealed 64 transverse fissures, 135 horizontal fissures and six other rail defects in a distance of 154 miles between Montpelier, Ohio and Gary, Ind.

The Sperry Rail Service of Danbury, Conn., was organized in 1957 when the Sperry Laboratory detected a transverse rail fissure for the first time in history, on New York Central rail.

18 *Do you know of an instance where three members of one family worked first-, second- and third-trick telegraphy in one station at the same time?*

Yes, in 1912 three members of the Parker family held those tricks at Supai, Ariz., a Santa Fe boxcar depot. They

Rare photograph shows killer elephant being executed by the Clinchfield Railroad at Erwin, Tenn., Sept. 13, 1916.

were Mr. and Mrs. Parker and their daughter, "Bunny," who is now Mrs. Florence Terwilliger of 1740 E. Pinchot St., Stockton, Calif.

19 *Was Barnum & Bailey's Jumbo the only circus elephant ever killed by a locomotive?*

The only one we know of. The accident occurred Oct. 15, 1888, at St. Thomas, Ont., Canada, with Grand Trunk freight engine 88, two years before GT freights were equipped with air brakes.

A number of circus elephants have perished in circus-train wrecks in various countries, and wild elephants have been hit and killed by locomotives in African jungles. In 1916 a Sparks Brothers Circus elephant named Mary ran amok and fatally injured three trainers. She was executed officially by a Clinchfield Railroad wrecking crew at Erwin, Tenn. A derrick car swung the huge beast aloft by her neck and held her up until she was pronounced dead. Because of her ponderous weight, death is said to have been instantaneous.

20 *Where can I get a copy of the Great Northern book published in 1946?*

The only such book we know of is a pictorial album published by the Kalmbach Publishing Co., 1027 N. 7th St., Milwaukee, Wis.

21 *How do Italian railroads compare with ours?*

The Italian railroad system route mileage is just under 10,000. Ours is nearly 221,000. Italian railroads haul mostly passengers. Latest available figures show 384 million passengers a year —about four-fifths of the U.S. figure. On the other hand, Italian railroads' freight tonnage is only about two percent of U.S. railroads' freight tonnage.

Steam locomotives in the U.S.A. are almost extinct, but Italy still operates nearly 2,500 of them in addition to more than 1,600 electric locomotives and over 100 diesels. But its steamers are dwindling, while electrics and diesels are increasing. Total Italian motive power units run about 15 percent of the U.S. total. Another big difference between the two countries is that Italy is pushing an electrification program that soon will embrace half of its total rail-route mileage. America's modest rail electrification is decreasing. Italian railroads have 162,000 employes — about one-fifth of the U.S. figure.

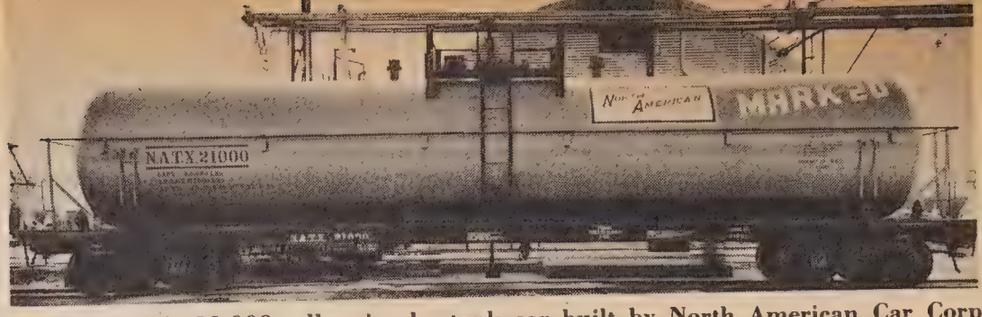
22 *Is there a railroad periodical for the blind?*

Not that we know of. However, the Texas & Pacific issues a Braille version of its regular *Eagle* dining-car menu.

23 *(a) What are the specifications for a railroad watch? (b) Under what circumstances were they adopted?*

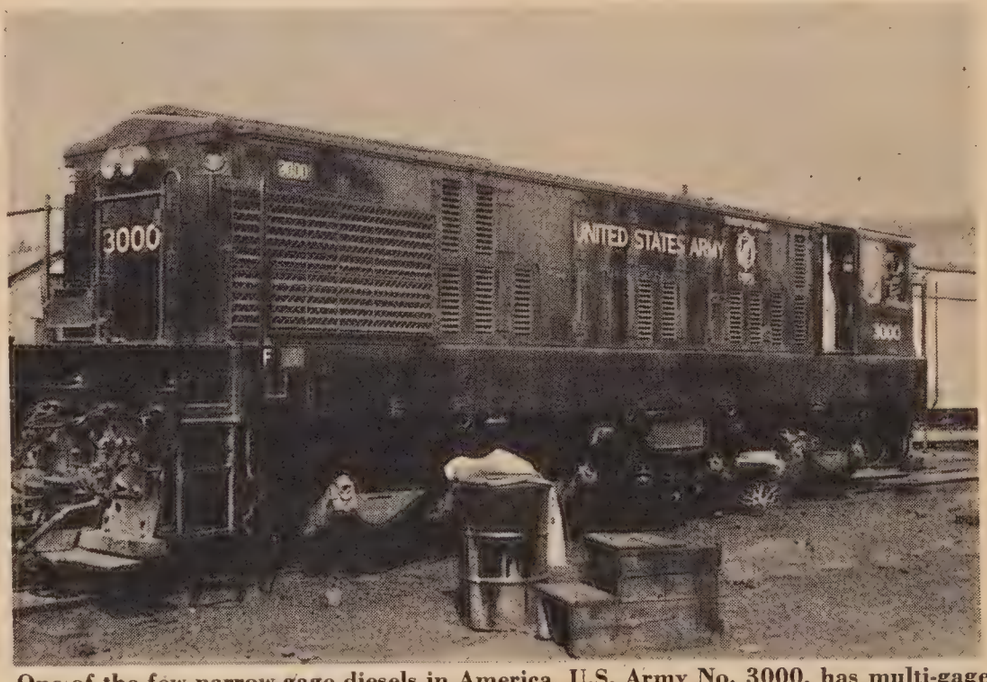
(a) It must have no less than 21 jewels and be at least a size 16 with an open dial, heavy black arabic numerals, black hands and a crystal in perfect condition. It must keep time within 30 seconds for one week. It must be registered and accompanied by a "watch card," with the date of last checkup by an official railroad watch inspector. A railroader must not paste pictures in his watch case. (b) The railroad watch had its beginning on a disastrous April day in 1891 at Kipton, Ohio, when a westbound train was rammed headon, killing 11 people. Investigation showed that the wreck occurred because an engineer's watch was four minutes slow.

If you visit Tennessee's Blue Ridge Mountains this summer you can ride the steam-powered three-foot-gage Tweetsie Railroad. J. Scheer and E. Black tell about it in "Tweetsie," an illustrated book. (Heritage House, 5308 Monroe Road, Charlotte, N.C.)



New Mark 20, 20,000-gallon jumbo tank car built by North American Car Corp.

There are no more passenger ferries in San Francisco Bay, but Western Pacific's new train ferry *Las Plumas* does a great job of moving freight cars across the bay.
Western Pacific Railroad



One of the few narrow-gage diesels in America, U.S. Army No. 3000, has multi-gage trucks, which makes it available for use on foreign lines of less than 3-foot gage.
Dave Ingles, 1909 Golfview, Dearborn, Mich.

24 *Please furnish the following data on short lines (a) List those with passenger service; (b) that operate railroad post office cars with clerk; and (c) the names of the three shortest member lines of the American Short Line RR Association.*

(a) The following ASLRA have passenger service as indicated by Interstate Commerce Commission for 1957, the latest available report:

Aberdeen & Rockfish
Atlantic & East Carolina
Boston & Maine
Buffalo Creek & Gauley
Carolina Western
Cape Fear Rys.
Central of Ga.
Claremont & Concord
Delaware & Hudson
Denver & Rio Grande Western
Detroit & Mackinac
Duluth & Northeastern
Frankfort & Cincinnati
Georgia Northern
Grasse River
Hampton & Branchville
Hoosac Tunnel & Wilmington
Louisville & Wadley
McCloud River
Midland Continental
Moscow, Camden & San Augustine
New Jersey & New York
North Louisiana & Gulf
Quanah, Acme & Pacific
Sierra Railroad
Tucson, Cornelia & Gila Bend
Virginia Blue Ridge
Wadley Southern
Wrightsville & Tennille

(b) The following operate post office cars:

Belfast & Morehead Lake
Boston & Maine
Central of Georgia
Delaware & Hudson
Denver & Rio Grande Western

(c) These are the three shortest member lines of the Association:

Virginia Central	**.71 miles of road**
Warwick Railway	**.90 miles of road**
Jerseyville & Eastern	**.96 miles of road**

25 *What changes have resulted from the merger of the Nashville, Chattanooga & St. Louis with the Louisville & Nashville?*

They have been many and varied. Sleepers between Louisville and Atlanta have been re-routed (via Chattanooga instead of Knoxville) and the *City of Memphis* has been discontinued. Three new divisions have been created—the Nashville, the Chattanooga and the Western & Atlantic, with former trackage of the NC&StL making the principle contribution.

Trains of the Nashville Division have been re-routed via Waverly, Bruceton and McKenzie, Tenn. At Chattanooga plans are under way for building new freight and passenger stations and a new freight yard. (The downtown stations and Cravens Yard will be abandoned.) Leewood Yard, just outside Memphis, will be reconstructed. Shop operations at Paris, Tenn., will be transferred to Bruceton. Obviously, there will be an integration of the NC&StL's office personnel with the L&N's.

26 *When was the first unbroken line of railroad completed between Atlantic waters and the Great Lakes?*

In 1851.

27 *What are tie plates?*

The plates of steel between the rails and the ties which provide the rail with a uniformly firm foundation. They help to hold track gage, and prevent the rail from cutting into the ties under the heavy impact of trains. ●

Running Extra

When you answer a question requested in *Information Booth* or *Running Extra*, be sure to mention the item number and date of issue.

O. W. BROOKS, Sec-Treas., Lodge 3078, Brotherhood of Maintenance of Way Employees, Box 187, Emporium, Pa., sends additional data on Hugh Stephen's comments about the Huntington & Broad Top (page 41, April):

He agrees that the H&BT always was standard gage, but points out that a narrow gage line paralleled the H&BT for about 18 miles. He refers to *Trains* "map of operating and abandoned railroads of Pennsylvania," which shows:

H&BT Mountain Railroad & Coal Co., standard gage; about 80 miles, including branches; operated in Huntington Co., between Huntington, Sexton, Hopewell and Everett; abandoned 1954.

East Broad Top Railroad & Coal Co., heavy traffic, 3-foot gage, about 40 miles, including branches; operated in Huntington Co. between Mount Union, Orbisonia and Robertsdale; abandoned about 1950.

Both roads were used mainly to haul coal and lumber.

WE GOOFED (item 3, April) in stating that the Detroit, Toledo & Ironton never had an electrified section. Actually, it had, years ago. We are glad this error was caught by several readers, among them Steve Maguire, James J. Genat, Norman Rolfe, T. M. Deter and Frederick Weiss.

JOHN C. PARRY, 51 Oakwood Ave., Upper Montclair, N. J., has a dome-shaped brass object (about 2½ inches high) with the number 580 stamped on it. Inside is a label which reads "Cap to oil cup on Lehigh Valley No. 580 wrecked at Mauch Chunk, Pa., in collision—1892."

This item belonged to his father, who was 20 at the time of the accident. He saw 580 collide with another train on a trestle and picked the brass cap from the wreckage.

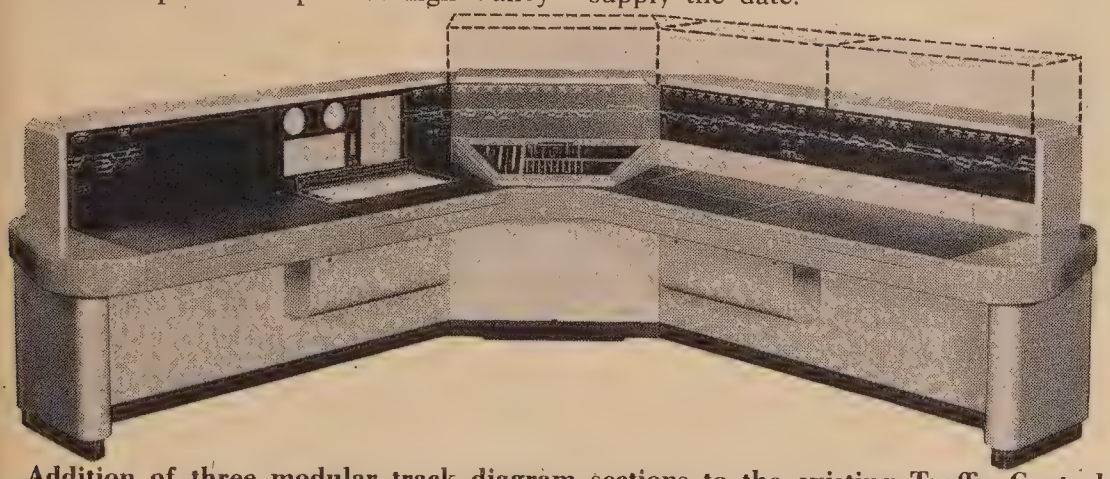
Who can furnish details of this wreck?

MORE data on the original transcontinental rail comes from Roy A. Wykoff, Jr., Iowa Soldiers Home, Marshalltown, Iowa. who says there is a section of it in front of the Box Elder County court house at Brigham City, Utah; which came from the area near Promontory Point.

JOSEPH FOX, Monomark BM/-EXN3, London, W.C. 1, England, says our report on early freight lines (item 37, Feb.) reminds him of an anecdote about the early days of railways in Britain. He writes "In 1855 the Midland had no London line of its own but its rails joined the London & Birmingham at Rugby. The high-class L&B turned up its aristocratic nose at the cargo. 'Coal by railway!' exclaimed its manager. 'They'll want us to carry dung next.' The coal went by rail, however, and has continued to do so ever since."

DISPOSITION of two Copper River & Northwestern engines is questioned by Pvt. Joseph Moore, MCAF, New River, Jacksonville, N. C., who says the McCloud River Railroad (April issue) is not in Oregon, but in California, near Mt. Shasta, where it ties in with the Great Northern. The town of McCloud is about 40 miles east of that point.

WILLIAM M. BILL, Rte. 1, Frederick, Md., says C. Milligan was the author of the poem *The Old Caboose* (item 30, April). It first appeared in the "Chicago Tribune," but he did not supply the date.



Addition of three modular track diagram sections to the existing Traffic Control Center at Tucson, Arizona will permit Southern Pacific to control an additional 145 miles of CTC territory between Lordsburg and Anapara, New Mexico. Dotted lines show where they will be placed. Existing TCC machine controls 125 miles of CTC.
Union Switch & Signal

REFERRING to item 14, April, C. W. Witbeck, P.O. Box 970, Hamond, La., points out that the Illinois Central brought out the first aluminum reefer about 1946.

BRIGHAM YOUNG'S private car (April issue) came from Utah to the Columbia & Western, according to Ernie Plant, 6344 Argyle St., Horseshoe Bay, B.C., Canada. The C&W was a narrow gage out of Trail, B.C., later taken over by the Canadian Pacific. The car had been used by officials before it was sent to the Alaska Railway. It served as a business car in Alaska until the Army took over during World War II. Then it was stripped of its beautiful carvings and converted to a bunk car for officers. After the war it was operated as caboose No. 240. Mr. Plant has no more recent data and wants to know what happened to it after that.

TWO wooden railway passenger cars are wanted by Daniel Harbaugh, 2643 Streetsboro St., Hudson, Ohio, for use in a summer camp. His preference would be a sleeper and an observation car which he wants to place on a permanent foundation in an "L" shape.

J. L. WATSON, 1233 S. Hoover St., Los Angeles 6, Calif., has a New York & Erie pass dated 1853. Does any reader have an older one? Mr. Watson might buy it. His pass collection numbers about 820. Many are over 100 years old. His train-order collection is from 329 roads all over the world, and in seven languages.

WHO can identify a clear glass globe with all-brass fittings, made by Wm. Porter's Sons, New York, with patent dates of April 23, 1867, Aug. 3, 1869 and June 13, 1877?

Earle C. Hanford, 56 Wayne Ave., Freehold, N. J., would like to buy such a lantern.

ADDENDA re Anthony & Northern (April '59) came from William A. Gibson, National Railway Historical Society, 1401 Fillmore, Topeka, Kan.

He says Mr. Chandler's answer actually applies to the Kansas City & Northwestern rather than the A&N, which he points out (*Official Guide*, Jan., '56) became the Wichita Northwestern—100.20 miles, 76 from Pratt to Vaughn, Kan., with a 24-mile branch line from Trousdale to Kinsley, Kan., tri-weekly train service and motor car connection between Pratt and Kinsley. The motor vehicle had a bus-type body on railroad wheels.

Since he does not give date of abandonment, perhaps some reader can enlighten us.

Seatrain Lines, Inc., which began hauling loaded freight cars by water in 1929 announces a new sea-borne container service, the Seamobile, operating between New York City and Houston, Texas. Each Seatrain ship has four decks with four tracks per deck and can hold 100 railroad cars or 80 railroad cars plus 64 Seamobiles.

STEVE KALTOFF, 749 Cary Dr., San Leandro, Calif., questions F. D. Messinger's statement on CTC operated by one dispatcher. He points out that only 214.7 miles in the 344.1-mile stretch between Portola, Calif., and Weso, Nev., is CTC and the remaining 129.4 miles is joint Western Pacific-Southern Pacific double track with automatic block signal system.

WHO has data on the dwindling Maryland & Pennsylvania — the backwoods short line nostalgically known as the "Ma and Pa"? Fred Sauerbrey, 1906 East Joppa Rd., Baltimore 34, Md., and other East Coast fans, would appreciate a brief history for publication in this department.

RUSSELL HAWKINS, 119 S. Grant St., San Mateo, Calif., wants information on New York Central's 5500 Poppet valve engine. How did her performance compare with the other 4-8-4's and what was her horsepower?

COMMENTING on the caption on page 38, Feb. issue, E. Everett Edwards, 10280 Clio Rd., Clio, Mich., says: "Train 21 at Grand Rapids would be bound for Muskegon (not Detroit), since Train 56 is the day train for that destination."

ALVIN JUSTES, Route 1, Box 254A, East Bernstadt, Ky., wants details of a freight wreck that occurred March 21, 1910, on the Louisville & Nashville. Who can furnish names of the trains, crewmen, cause, etc.?

ITEM 29, Feb. issue: Paul Rigden, 5538 Main Ave., Ashtabula, Ohio, feels railfans will be glad to know that the New York Central sent him the headlight, marker lights and number plate (No. 1977) from their last retired steamer (Riverside, Ohio, May '57). A photographer sent him a large picture of No. 1977.

He has a rather large memorabilia of NYC items, such as headlights from Hudson type No. 5212 and Niagara type No. 6073, as well as the emblem of No. 6024. He has the Keystone plate No. 5351 from the last Pennsy steam engine retired at Philadelphia in Nov. 1957.

His collection also includes old lanterns from various roads and an all-brass bell from the Lehigh Valley which can be rung by air, steam, or by hand.

F. E. GILLASPEE, 1813 Kenneth St., Modesto, Calif., wants information on the Apache Railroad which runs between Holbook and McNary, Ariz.

GANDY DANCERS: Two readers have sent answers to our query about the origin of the term (Apr. issue).

Dave Wertz, Box 353 Bakersfield, Calif., writes: "Old section men say that back before the turn of the century an extra gang foreman on the Northern Pacific, named John Gandy, had a rule that any man caught standing still was fired. So the fellows would suffle around during a lull—hence the term."

O. W. Brooks, Box 187, Emporium, Pa., has this answer: "It comes from the Gandy Tool Mfg. Co., in Chicago, makers of track tools."

We've heard of this origin before but have never been able to prove that such a company existed. Who knows?

ROBERT LARSON, 2127 S. Fifth, Rockford, Ill., (answering item 16, Dec. '58) has a *Hammond's Atlas of the World*, 1939 edition, that lists most of the active railroads and discontinued lines in each state, including important electrics. Each railroad is keyed.

"HAS any named train other than the *Empire State Express* been operating continuously since 1892?" R. G. Cornelius asked in the April issue. "Yes," replies Lewis Walter, 34 Highview St., Norwood, Mass. He calls attention to *The Federal*, joint New Haven-Pennsy train between Boston and Washington, which has been running steadily since May 8, 1876. He believes this is the oldest named train in the United States still running continuously.

ARNOLD LEWIS, Butte, Mont., wants a brief history of the Utah & Northern narrow-gage that operated between Ogden, Utah and Butte, Mont., from about 1881.

WHO knows the date of an accident on the Chicago & Eastern Illinois, known as the "Excursion Picnic Wreck," at Glenwood, Ill., around 1900? Mrs.

Ruth Burcham Howard, 407 W. Woodbury St., Danville, Ill., says she was in it but can't pinpoint the date.

MIXED TRAINS: Readers from all over the country have sent in additions to Lowell Williams' list (April issue). Here they are:

Boston & Maine has two in daily operation on the Portsmouth Branch from Manchester to Portsmouth, N. H., 40.4 miles. This train is an ancient combine, serving both passengers and crew. It boasts a pot-bellied stove, oil lamps and old-fashioned icebox which holds a can of fresh spring water. (All within 50 miles of Boston!)

The Belfast & Moorehead Lake runs daily mixed trains between Burnham Jct. and Belfast, Maine, 33.1 miles.

Northern Pacific operates Nos. 199 and 200 between Beach, N.D. and Ollie, Mont., 26 miles, on Mondays and Fridays only. It is actually the Glendive-Dickinson local freight, which on Mondays and Fridays works the Ollie Branch. On those days the caboose has passenger seats and a baggage section. It uses an old reefer and water car to supply stations on the branch. Motive power is a GP-7 or 9.

The Norfolk & Western's Abingdon (West Jefferson) Branch has Nos. 201 and 202, which stop at Whitetop, Va., and reach one of, if not the highest elevation of any trackage east of the Mississippi (discounting Mt. Washington Cog Railway), 3,565 feet.

The StLSW has a mixed run between Waco, McGregor and Gateville, Tex. (about 40 miles) which may be the only passenger service the Cotton Belt offers in Texas.

Arkansas has the following: The Chicago, Rock Island & Pacific has two trains between Tinsman and Crossett. The Doniphan, Kensett & Searcy has four between Kensett and Searcy, The St. Louis South-Western has two between Malden, Mo. and Trumann, Ark.; two between Paragould and Blytheville; two between Stuttgart and Gillett; and two between Pine Bluff and North Little Rock. North Louisiana & Gulf has two trains between Hodge and Gibsland.

The state of Texas has the following: The Santa Fe—two trains between Carlsbad, N.M. and Pecos, Tex.; two between Pampa and Clinton; two between Lubbock and Seagraves; two between Panhandle and Borger; and two between Ft. Stockton and Presidio. There are two between Camden and Moscow (steam powered) on the Moscow, Camden & San Augustine. The St. Louis-South-Western has two between Addison and Fort Worth and two between East Waco and Gatesville.

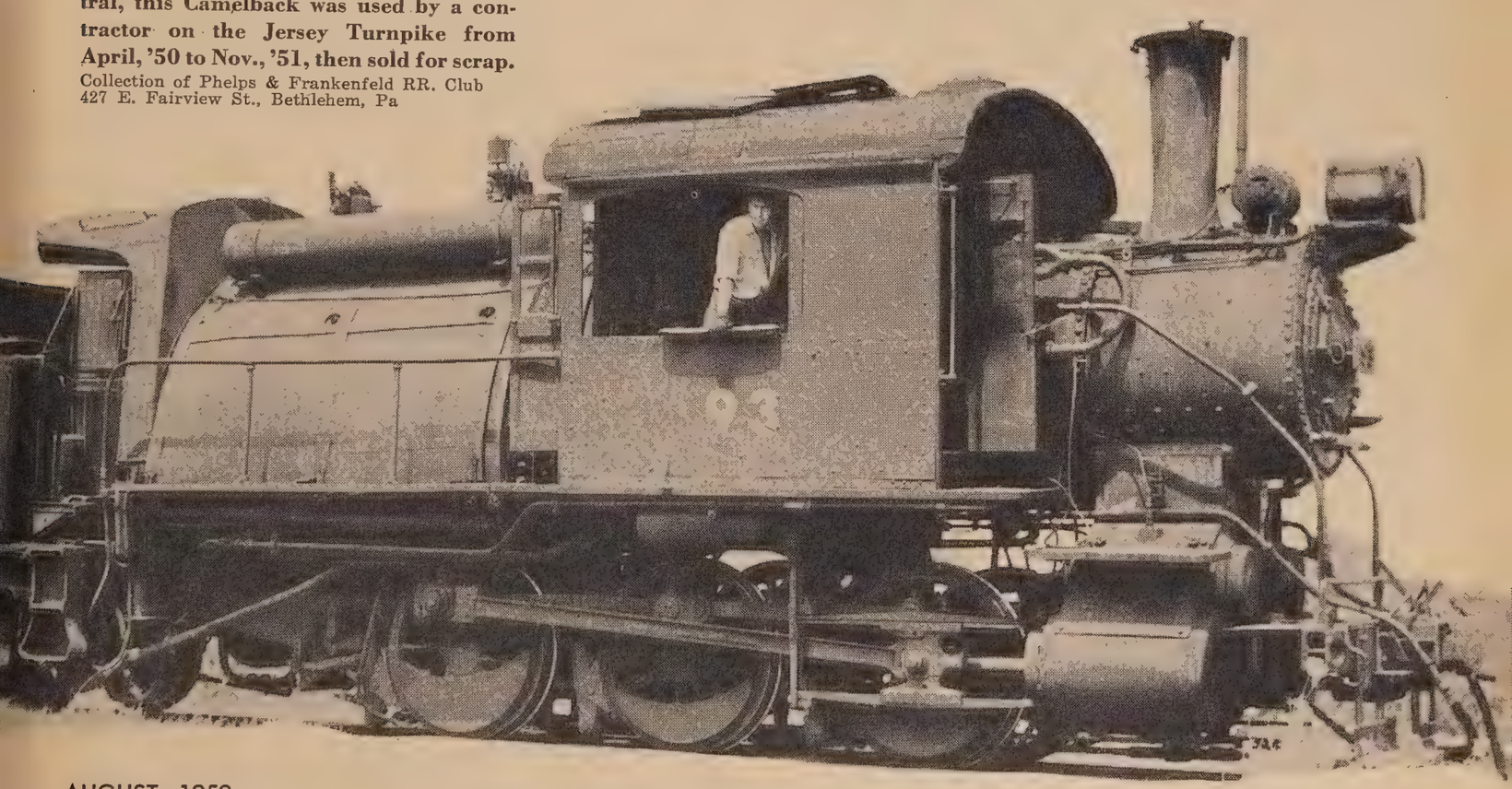
JIMMIE H. TATUM, 412 West First St., El Dorado, Ark., wants information about the Bois D'Arc & Southern, a seven-mile line at Seagoville, Tex., abandoned in 1946.

SHOO-FLY RAILROAD: James H. Whippo, 218½ Park, Pacific Grove, Calif., has some interesting data on the Grand Rapids & Indiana (which he calls the "Shoo-Fly"). He saw the first train, which was pulled by the *John Young*, a beautiful locomotive with bright red driving wheels and polished brass around the boiler and over the cylinders. The top of her smokestack was almost the width of the track. She was a woodburner and the fuel was stacked high in the tender. Charley Francisco (afterward pastor of a Quaker meeting house in Richmond, Ind.), was the first engineer. He took Mr. Whippo and his friends for rides in the engine. The GR&I opened up new vistas for the people of that isolated area which was hemmed in by forests.

GEORGE HENNESSY, Cedar Rapids, Iowa, wants to know what railroad pioneered longer, wider and higher berths in sleeping cars.

E. M. NEFF, 1515 Maryland Ave., Springfield, Ohio, sends more data on the Cincinnati, Lebanon & Northern, taken from old copies of the *Official Guide*: April, 1883 shows that it ran from Cincinnati to Lebanon as the Cincinnati Northern; Nov., 1893 lists it as the Cincinnati, Lebanon & Northern; Nov., 1909 lists it under PRR ownership; and in the Aug., 1922 issue, the CL&N has lost its identity and is merely a branch of the Pennsy.

After years of service on the Jersey Central, this Camelback was used by a contractor on the Jersey Turnpike from April, '50 to Nov., '51, then sold for scrap.
Collection of Phelps & Frankenfeld RR. Club
427 E. Fairview St., Bethlehem, Pa



Westbound Pennsy M-1 (4-8-2), No. 6979, drifts along main line through Duncannon, Pa., sporting white feathers from pops and generator stack. String of hoppers is just out of Enola en route to Altoona. Scene dated Sept., '56, can never again be duplicated.
Don Wood, 29 Mt. Haven Drive, Livingston, N.J.

ROUND TRIP TO OBLIVION

The Narrow-Gage Black Hills Central, in South Dakota, Operates the Only Steam-Powered All-Passenger Train on Any Common-Carrier Road in the U.S.

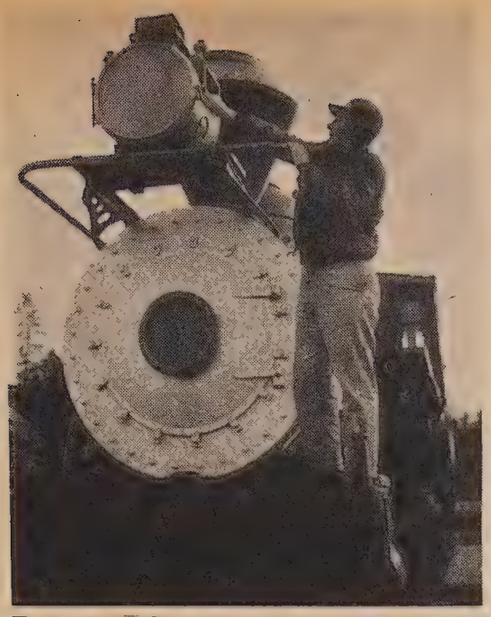
by Earl Coupens

WOULD YOU LIKE to ride a quaint, three-foot-gage train, vintage of 1880, pulled by a real diamond-stack engine, a Baldwin 2-8-0, hand-fired with coal and trailing a long squirrel-plume of white smoke? There is such a train, my friend, and she operates not on flat terrain but up and down mountain grades bordered by primeval forests. Interested? Okay, then, head for the hills—the mile-high Black Hills of untamed South Dakota—and take a memorable trip over the Black Hills Central Railroad.

Our streak of varnish is the kind of train you read about and see occasionally in Western movies. But reading a book or looking at pictures can't compare with the thrill of riding the cushions yourself on the road of yesterday and smelling the acrid engine-smoke.

I'm the hogger on that pike. No other hogger left in the States handles a regular, steam-powered, passenger train on a common-carrier railroad. BHC is unique. The Rio Grande offers passenger service on its narrow-gage Silverton Route in Colorado but operates a *mixed*

This BHC train consists of Consolidation-type loco and open cars rebuilt from flats used in the 1948 Chicago Railroad Fair.



Engineer Coupens adjusts headlight on BHC No. 9, a Mogul named *Chef Crazy Horse*, built by Cooke in '82 for Colorado & Southern narrow-gage.

train, not a straight passenger train.

I know about the two-foot-gage Edaville Railroad at South Carver, Mass., on the thick end of Cape Cod, and the Pine Creek line near Freehold, N. J. Also the Rail City Museum setup at Sandy Creek, N. Y.; the slim-gage Tweetsie that runs out of Johnson City, Tenn.; the trackage on the University of Miami (Fla.) South Campus; Ward Kimball's private Grizzly Flats Railroad at San Gabriel, Calif., and Knott's Berry Farm at Buena Park, Calif., and the Crystal Springs & Southwestern in Travel Town, Los Angeles.

These and a few other full-scale amusement roads haul passengers with steam power but not one of them, like the BHC, is a common carrier.

You must have heard of the super-colossal portraits of four American Presidents that Gutzon Borglum sculptured in deathless granite high on Mt. Rushmore in South Dakota. This bold work of art, dedicated in 1927, is located near the gleaming rails of the Black Hills Central. You'll see it, of course, when you visit our pike.

All summer long and into early Autumn, when the forests flame red and gold, you can hear the full-throated bellow of a steam whistle. Trace its echoes to Hill City, an unspoiled town thirty miles south of Rapid City. There where the railroad begins, you leave behind U.S. Highway 16 and banal civilization and you wander back into the past.

You'd better reach Hill City shortly after daybreak, when bluejays are scolding and deer are browsing timidly on the lush grass, if you would mingle with the early-rising railfans who inspect our engine, No. 69.

This sturdy old Consolidation, known as *Klondike Casey*, was built in 1908 for the narrow-gage White Pass & Yukon in Canada and Alaska. She has 21x29-inch cylinders, modest 42-inch driving wheels, and boiler pressure of 160 pounds per square inch. Her weight is 213,000 pounds. Tractive effort, 28,260 pounds. For 48 years she wheeled passengers and freight in the Land of the Midnight Sun. Then the WP&Y dieselized, and No. 69 was loaded into a steamship at Skagway, Alaska, for the first leg of her long journey to Hill City.

Each morning Fireman Mackey and I get *Klondike Casey* coaled and watered and fired up for another day's work —sixty miles daily, six round trips of ten miles each between Hill City and Oblivion. We transport up to 1,000 passengers a day during the season. You can find photographs of the 69 in numerous picture collections.

I am proud to run a steam engine in the Diesel Age. Very few Americans do. It gives me joy to see our five historic coaches fill up with excited, happy men, women, and children for the run to yesterday.

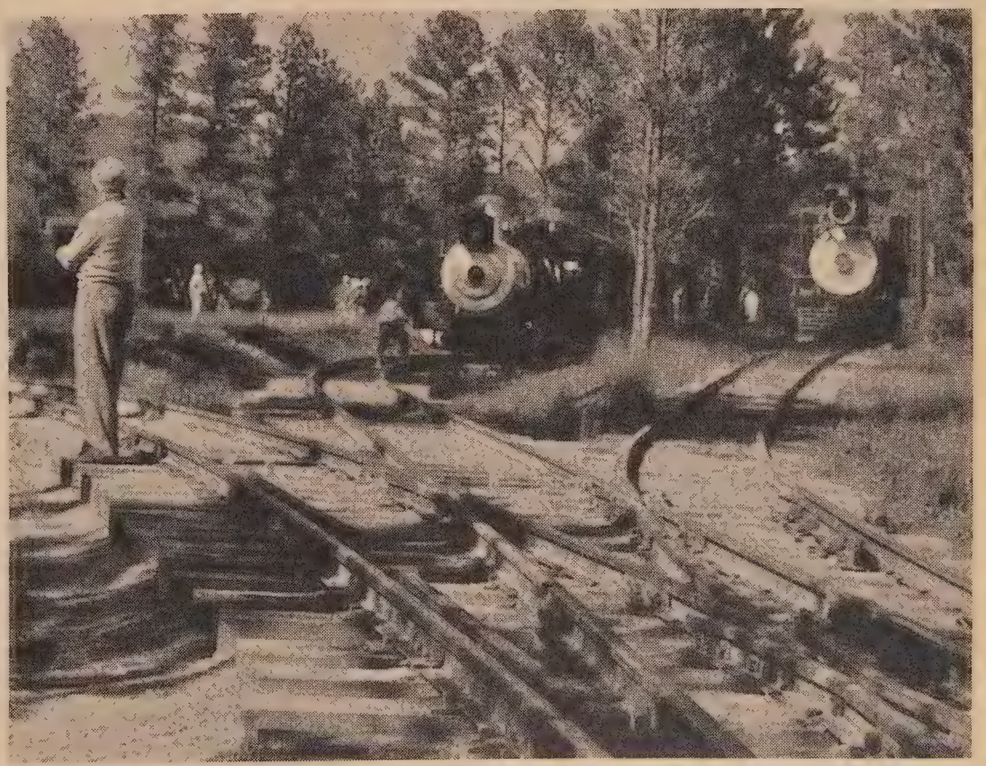
Up 4 percent grades we go, around 16-degree curves, across lofty fills, and through spectacular cuts hewn long ago by brawny, determined men with hand packs and black powder, and then we plunge downhill and up across the next hogback, all on narrow-gage rails. Such things make the trip interesting.

I feel that I almost own the train. Two years ago, on her first run, I took her up the famous Tin Mill Hill, just out of Hill City, and I've handled her on almost every trip since then.

Enthusiastic patrons of our narrow-gage did not wait for the road to be completed before they began flocking to the scene. From the day the first spike was driven, they swarmed around, coming to Hill City on two-week vacations, encouraging the steel gang that worked on the tracks and checking the progress from day to day.

The line was built from three directions. One group of workers started from Hill City, up Tin Mill Hill, and spent much time installing dual-gage switches on the wye that stood already at the point where the slim-gage BHC comes into the standard-gage Burlington main track to share the Hill City depot.

A second gang built the narrow-gage wye at Oblivion, deep in the forest, grading and clearing timber as they went along. The third construction crew began about midway and toiled first toward one end, then the other. I took the first primitive train over the new



Three-way switch at Oblivion came from the century-old East Broad Top Railroad in Pennsylvania. The two engines are *Klondike Casey* and *Chief Crazy Horse*.

© Rapid City Journal

route the morning after the last spike was driven. August 18, 1957.

Our earliest runs were made with a minimum of facilities. We had a small, war-surplus, gasoline pump that worked half the night to fill the tender from a cool, shallow stream across from our storage tank. Later in the day, after our third trip, when we needed more water we'd stop at the edge of town and fill the tender with a fire hose attached to a city hydrant, while passengers watched with lively curiosity.

By June, 1958, however, we were able to take water each trip from a tank newly built at Hill City. This tank was bought with dollar subscriptions that came to the BHC from well-wishers all over the States and Canada.

Our first run to the wilderness terminus of Oblivion stampeded a herd of white-faced cattle. They had probably never before seen or heard a steam engine. The herd stirred uneasily as we rounded a curve into their view. At first one or two of them turned and headed leisurely for the forest. Then, when I yanked the whistle cord for a small dirt-road crossing, the whole herd suddenly charged into the timber. They ran through the woods and out the other side, only to meet our train as it rounded the next curve.

Now and then we still startle deer, but the cattle in the mountain meadows have become more blase and simply stare at the train as we roll by. Occasionally we shoo a deer off the track.

Sometimes folks ask me, "How did the Black Hills Central get started in the first place?" Well, a group of railfans headed by William B. Heckman wanted America to have another operating steam railroad "for boys of all ages," as he put it. Locomotives exhibited in museums and parks were fine, he reasoned, but live steam was much more exciting.

So Bill and his associates organized the BHC and had it incorporated under South Dakota laws, with Bill himself as president. Many fans backed the idea. When the company began issuing souvenir Founder's Certificates at a dollar each to finance the project, applications and dollars came in by mail from English-speaking North America and half a dozen foreign countries. Some persons sent five or ten dollars apiece. Others enrolled their friends and relatives as Founders. One loyal supporter went so far as to enroll fifty people!

Besides the Certificates, which commend donors for their interest in oldtime railroading, each supporter is given a round-trip ticket to Oblivion which he can use and then save as a souvenir.

Some Founders have been active in locating retired engines, cars, and other relics for display at our museum in Oblivion. One man came up with an odd-looking switch of the Civil War period that you can see today at the wye. Another citizen donated a two-foot-gage steam locomotive to our collection. Still another helped us to get a standard-gage business car.

Pretty soon Oblivion will have an 1800-type depot to house the exhibits, including a model railroad layout, and a snack counter, for even railfans like to eat. We may eventually get a telephone for communicating with Hill City, but such new-fangled contraptions are regarded with suspicion at the end of steel.

Already, more than 30,000 passengers have ridden the BHC to Oblivion. The fare is $1.65 for adults. With no freight income and no head-end revenue from passenger trains, the BHC relies entirely on passenger fares and cash from the Founders' Certificates to pay its expenses, but the anticipated increase in vacation traffic this summer is likely to halt the issuance of Certificates.

Our plans call for adding more cars to our train this summer, and in time we will probably have a second train. When and if we do, I hope to take her on the first run to Oblivion. I'll do the same for you, my friend, when you visit the Black Hills on your vacation this summer—and I hope you will.

Yep, thar's steam and engine-smoke and shinin' narrer-gage rails in them thar hills that you climb on the round trip to Oblivion. ●

They Burned Union Station

Mobs Turned the Railroad Strike of 1877 into a Carnival of Blood and Violence

by "Carload Andy" Ospring

EARLY in 1877 railroad managements in Eastern U.S.A. announced that their employes' wages would be reduced 10 percent, the new schedule to go into effect June first on some roads, July first on the Baltimore & Ohio.

This was the second cut in five years and it really hurt. There had been some excuse for the first one, because it came at a time of general business panic, when big investment houses were forced to the wall and money was scarce. But by '77 the nation had begun to snap out of the depression.

Rank-and-file railroaders protested against the second cut as high-handed and unfair. On top of that, they complained of irregular employment, many men being laid off three or four days at a time even while they were away from home. They complained also of slow pay. Sometimes wages were held up as long as three months in a row!

The Pennsylvania Railroad ordered that all freight trains be doubleheaded between Pittsburgh and Altoona. Prior to that time Pennsy doubleheaders had been rather scarce. The object of this order, as the trainmen observed, was to cut operating expense by eliminating one regular train crew on each doubleheader. The new trains were considerably longer and their crews had twice as much work and more responsibility.

On the day this order was issued, June 19th, two brakemen and a fireman

Drawn by Joe Easley

Frenzied strike supporters destroyed the Pittsburgh depot, more than 100 engines, 15 passenger cars, and 850 freight cars.

at Pittsburgh refused to go out on a doubleheader. The train dispatcher then recruited a train crew from among the yardmen. The strikers attacked the scabs, as they called them, with coupling pins and clubs. They would not let these men take over their runs.

As incoming trains arrived, their crews for the most part sided with the strikers. Tension mounted. In just a few hours Pittsburgh freight service was tied up and the city was gripped by the worst riot in its history. Most of the Pennsy's property in that area fell into the hands of excited railroad workers, underprivileged men demanding what they thought were their rights.

At first neither the city officials nor police interferred, because the situation was reasonably peaceful. But late in the evening on the first day of the strike the division superintendent appealed to the sheriff's office for protection in his efforts to get the doubleheaded freight trains moving. Railroad officials tried to harangue the crowd, which was getting larger and more menacing by the minute, but were shouted down.

Public feeling in and around Pittsburgh was definitely against the railroad. The superintendent, anticipating that violence would break out, wired to the Governor of the state for aid. The Governor was away from his office on business, but his Adjutant General sent the state militia to Pittsburgh. General Pearson arrived on the morning of July 21st with three regiments bent on maintaining peace.

These troops, units of the National Guard, consisted mostly of Philadelphians. They were assigned to hold an important railroad grade crossing near the Union Station. When they began unloading from trains the crowd went wild with enthusiasm, for they knew that the soldiers sympathized with them. The Pennsy officials noticed it, too, and made the mistake of asking that the state militia be withdrawn from the city.

Hours passed. The crowd was swollen by people pouring in from neighboring towns and its mood was becoming more and more truculent. The newcomers included coal miners, who favored labor in all kinds of disputes and who led drab lives and came to the city for excitement. Many hoodlums and roughnecks also swarmed in.

LATE that afternoon other armed forces arrived, militia men from the Pittsburgh district. They were stationed at key points near the railroad property adjoining the depot. General Pearson told his men not to fire a shot.

As night came on and gaslights flickered in houses, buildings, and public lamp-posts, the troops scattered themselves all over the city, many deserting their posts to mingle with the people. The crowd that thronged around the Pennsy roundhouse soon became unruly. Riot was brewing.

A number of the troublemakers had firearms. They aimed shotgun blasts at the roundhouse windows and kept it up sporadically, despite warnings from the troops that bloodshed would follow if they did not stop. Late that evening, some of the soldiers, apparently disregarding orders from their commander, fired on the crowd, killing two or three rioters and wounding others.

That did it. With yells of rage, the mob reacted violently. Small fires had been started here and there on railroad property, and the first bloodshed turned the hoodlums into pyromaniacs, determined to wreak havoc on the Pennsylvania Railroad. The mob besieged militia men in the roundhouse.

Soon the roundhouse was blazing. Then the freight house and the passenger station went up in flames. The mob howled insanely. There was no

stopping them. Fire spread to numerous freight and passenger cars, reducing them to charred wood and twisted metal. While the freight house was burning, some men pilfered its contents, rolling out kegs of whisky to add drunkenness to the growing disorder.

It is surprising that, in view of the mob's temper and the enormous amount of damage done, there were relatively few casualties in the Pittsburgh riot. A much larger number of violent deaths occurred elsewhere in connection with the great railroad strike.

Many of the people in the crowd at Pittsburgh gradually became aware that they hadn't eaten in nearly twenty-four hours, and they thinned out before dawn. Pennsylania Railroad officials, eager to get them out of the city, announced that they had set up tables loaded with food on the opposite side of the Alleghany River and this food was free for the asking.

The people then began drifting across the river for something to eat, and the riot subsided. Thus it came about that the railroad company fed members of the mob which had caused heavy damage to its property. After their appetites had been appeased, the folks returned meekly to their homes.

The destruction done to the Pennsylvania Railroad was estimated to be well over five million dollars, and that was a huge sum indeed, in those days, particularly during hard times. The Pennsy lost its Union Station, the roundhouse, a large hotel, a grain elevator. In fact, most of the forty buildings destroyed by incendiaries were railroad property.

The rolling stock loss exceeded 15 passenger cars and 850 freight cars. More than 100 locomotives were destroyed, many of them having been caught there, unable to move when the riot got under way. Many of the freight cars put to the torch were loaded with merchandise, which also was lost.

WHILE the strike was on, through freight and passenger trains bypassed the Smoky City. Damage done to the Pennsy was confined to the Pittsburgh district. Meanwhile, the trouble was spreading. John King, Jr., first vice president of the Baltimore & Ohio, expressed surprise that it hit his road.

"The B&O," he said, "was the last company competing for the great trade of the West which made the second wage reduction of 10 percent. Since the panic of 1873, not only have rates on through freight and other traffic been reduced by severe and active competition, but the quantity in the aggregate has been diminished. Especially in this true of the coal trade."

The new wage schedule included: Conductors, between $1.33 and $1.66 per day; brakemen, $1.00 and $1.33; engineers, $2.25 and $2.93 (not counting a 25-cent premium), and firemen, $1.35 and $1.53.

What Mr. King referred to as "severe and active competition" was the cutthroat rivalry for freight and passenger business which had brought rates down to ridiculously low levels, often below actual cost. For example, livestock was hauled from Chicago to New York, more than 900 miles, at one dollar a carload! And passengers were transported between the two big cities for as little as $2.50 a round trip!

Someone had to pay for these losses, and naturally the employes were stuck.

On July 16th forty men in B&O freight service at Baltimore, Md., showed their wrath by leaving their trains and declaring a strike. The company responded by hiring forty "scab" train and engine men to take their places.

There were rioting and bloodshed on the B&O, among other systems, in what turned out to be the greatest and most violent demonstration of railroad labor that the world had ever known. The walkout spread over fourteen states. It tied up almost every road between the Hudson River and the Mississippi, from Virginia to the Canadian border, and it cost more than a hundred lives and railroad property worth millions of dollars. But it did not involve the Brotherhood of Locomotive Engineers, which had been organized only a few years before and was still rather weak.

Federal troops were called out in five of the fourteen states, and at length bayonets and bullets "pacified" the malcontents. The great strike of 1877 fizzled out. Trains began running again on schedule, including the Pennsy's much-hated doubleheaders.

William H. Vanderbilt, president of the New York Central, issued this statement: "We have passed through a period of unparalleled excitement . . . I appealed to you to resist willful lawlessness at the hands of rioters, to protect the property of this company, and assist in restoring order. Your response has won the admiration and respect of the entire company Of our 12,000 employes, less than 500 have shown any disposition to embarrass us."

As a token of his appreciation, Vanderbilt distributed $100,000 among the employes, except executives and clerks, rated according to their position on the payroll.

Thus ended the first big railroad walkout. Although the men did not win the wage scale they had fought for, they demonstrated a power that the officials would never forget. They showed, too, the need for organization. And as they organized here and there over the years and as their organizations grew in strength, wages and working conditions improved. The strike of 1877 was a long-range victory.

From the author's photo collection

Wreckage in Pennsy roundhouse at Pittsburgh, where mob besieged state militia.

R. C. Lake, on Pennsy's electrified Maryland Division, uses device like fish-pole, with gage at bottom, to measure the wear of a contact wire.

Pennsylvania Railroad

Ever see a way-car equipped with Marcum airbrake signal? Indicators would be in this position, crosswise to car, if a train were coupled ahead and brakes set.

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Name_____ Age_____

Address_____

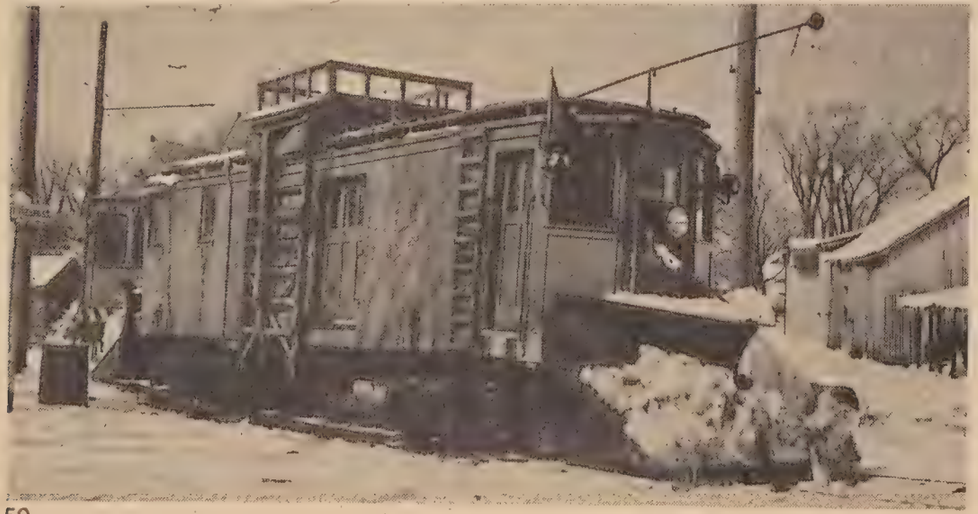
City_____ Zone_____ State_____

Sy Reich accompanied Steve Maguire on last run of Niagara, St. Catherines & Toronto Ry. Steve took these four pix. (Above) No. 620 crosses Ten-Mile Creek.

No. 620 waits while freight motor 21 pushes cars into siding at Port Colborne.

Car 620 on bridge of *old* line to Niagara Falls, Ont., on last day of operation.

There was snow on the track that final day. Here is line car 30 used as a plow.



Steve Maguire's TRANSIT TOPICS

WILL crewless trains eventually run the 725 miles of New York subways? It could be. New York City Transit Authority is exploring the possibility of converting its whole underground system to automatic operation!

Steve Maguire

Crewless trains have been tried out experimentally, with some success, on the New Haven Railroad and overseas on the French National.

If applied to subway trains, this plan would cause some technological unemployment. You could hardly blame Mike Quill for not liking it. Mike is head of the local Transport Workers Union. His objective is to keep as many TWU members on the payroll as possible and at top wages, regardless of whether or not he inconveniences millions of subway riders with a strike or raise fares.

NYCTA announces that, if the plan is adopted, its first step would be to convert to automatic control the short shuttle line between Times Square and Grand Central Terminal. The Transit Authority estimates that this could be done in less than a year for about one million dollars. The cost, says NYCTA, could be made up eventually by savings on the wages of crews. No mention is made of how Mike and his merry men would react to the abolition of crews.

Complete subway automation would eliminate 90 percent of the 3100 motormen and 75 per cent of the conductors and platform men now employed. Of those left, most would work on station platforms, using manual levers to supersede the automatic operation whenever necessary.

Existing cars, tracks, and platforms, with minor modifications, would be used in the new plan. Electronic controls would be placed on the cars, platforms, and in the tracks. Trains would be dispatched by an automatic mechanism into which the desired schedule is fed.

Aside from financing, all that is needed to make the shuttle trains crewless is approval by the City Board of Estimate. If it were attempted, TWU would pull the biggest transit strike in history.

Charles L. Paterson, NYCTA chairman, says the difficulties do not appear to be insurmountable. Further studies would have to be made, he says, before automatic operation could be extended to the entire subway system.

Also making headlines are two offers by private individuals to buy and operate the city's entire transit system, retaining the present 15-cent fare. Will the city sell? We don't know—yet.

EXCEPT for Toronto Transportation Commission streetcar system, all passenger trolleys will be gone from Canada by early September. Included in the demise are Canada's last two interurban lines, the Niagara, St. Catharines & Toronto Railway and the Canadian National's Montmorency Division, the latter formerly owned by Quebec Railway, Light & Power Company.

Quebec-St. Joachim passenger service ended in the early morning of March 16. An independent bus line took over. Rail freight service is expected to be dieselized shortly.

Twelve days later, the last interurban left Port Colborne for Thorold, Ont., on the NSTC&T line. This service was replaced by a bus, but trolley freight continues on the network out of St. Catharines, Ontario.

Early this year Ottawa Transportation Commission began to convert its streetcar lines under a plan that called for complete "bussing" by June 1. The end of the trolleys, combined with a cut in bus operation, referred to by OTC as "streamlining" the service, has cut 200 employes from the payroll.

September 6 is the date set for trolleys to disappear from all Montreal streets, reports the Montreal Transportation Commission. Six trolley lines, with a total of 25 miles of route, will vanish. They are the Papineau, Rosemount, Delorimier, Millen, and Montreal North. The Cartierville line would be gone by the time this issue is out.

Ever since the MTC took over the Montreal system in 1951 and began converting to buses, the number of revenue passengers has been dropping steadily. The future looks bleak for Montreal rapid transit. We've heard reports that a European company was interested in building a Montreal subway, but MTC Chairman Duperron denies knowledge of any such plan. Apparently MTC is committed to slow, congested bus operation, with no future program for anything better.

In Eastern Canada a few juice freight lines are still operating, but eventually most of these are likely to be dieselized. Thanks to Jean Le Clerc, R. D. Brown, John Eagle, and John Vogel for sending us the news.

ELECTRIC RAILROADERS' ASSOCIATION, celebrating its 25th Anniversary, plans a railfan week-end at Washington, D. C., on August 15 and 16, featuring a tour of D. C. transit lines, a Pennsylvania Railroad trip, and a convention meeting with entertainment. The public is invited. Contact the Convention Committee at ERA headquarters, 145 Greenwich St., New York City.

GONE is the hope that trolleys will be running in the District of Columbia after 1963. President O. Roy Chalk of the D. C. System, has lost his appeal for lengthening this deadline, reports H. H. Diers, 4722 Chesapeake St., N.W., Washington, D. C., and the company is now resigned to the dismal prospect of total rail abandonment.

First on the bus substitution schedule are Georgia and Wisconsin Avenues and 7th Street, with Cabin John later this year, and the Mt. Pleasant line ending in 1960. The rest of this fine railway system will be torn up piecemeal. The last lines to operate, 14th and 11th Streets, will go in 1963.

Capital Planning groups, studying a report on Washington traffic by De-Leuw, Cather & Co., of Chicago, are giving President Eisenhower plans for a $2.5 billion system of freeways and rapid-transit subways in the Capital area that extends into Maryland and Virginia.

Under the report, two rapid-transit electric railway lines would utilize median strips of new freeways, which would underpass downtown Washington in crisscrossing subways. These would total about 35 miles of track and cost about $450 million.

One route starting in Bethesda, Md., would run downtown, jog around Capitol Hill, and go out under the Anacostia River to a terminal near Suitland Parkway. The second route would originate in the Silver Spring-Wheatland section, run downtown and under the Potomac River, and terminate in Alexandria, Va. The stations would be about a mile

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If you're not afraid of hard work and can make an investment of about $8,500 in truck and stock, you may get a chance to become one of these distributors with a "protected" territory.

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Closed trolley in Bangkok, Thailand capital, waits for another car at turnout.
J. W. Higging, Tokyo, Japan

apart, with a large downtown terminal station near Twelfth and E streets, N.W.

THE VALUE of rapid transit under severe weather conditions is shown in a *Christian Science Monitor*, clipping sent by William C. Kessel, 101 Center St., Hamburg, N. Y.

"When a twin deluge of snow and shoppers hit Cleveland streets," it says, "the only commuters who got home on time were those who rode rapid transit. Private cars and buses were locked in a traffic snarl which took almost four hours to unravel. But the 50,000 who rode either of the two rapid-transit systems were home in plenty of time for dinner.

"The fact that rapid transit is not only fast but relatively weatherproof is one of the big reasons why Cleveland is laying major emphasis on this approach in dealing with the tremendous problem of moving commuters and shoppers.

"There are other reasons, too. One is that the cost is not excessive when compared to the huge price tags on new freeways. Another is the curious fact that rail transit seems to be more socially acceptable than buses. Furthermore, it is more flexible than other types of transportation. When a big shopping day or sports event brings extra thousands of people downtown, they can be moved simply by speeding up schedules and adding cars."

On the other hand, President Thoma of the Buffalo, N. Y., bus system delivered a tirade against the plan for rail rapid transit suggested by Melvin H. Baker of the Buffalo Redevelopment Foundation. Mr. Thomas's idea of flexibility differs sharply from that of the *Monitor*. Said he: "They (the buses) are far more flexible than rapid-transit service provided on steel rails by vehicles with steel wheels. They are free from system-wide delays resulting from mechanical or electrical failures on fixed rails."

Readers can judge for themselves.

UNUSUAL interurban cars—only two of that design ever built—were operated on the Stark Electric Railroad between Canton and Alliance, Ohio, from 1914 to '18, writes McKinley Crowley, 714 44th St., NW, Canton, who often saw those cars. He supplied our photo.

Built by Jewett in 1914, they were numbered 18 and 19. The front end was sharply curved in parabolic design and the cars were generally referred to a "wind-splitters." A very few other roads had cars with this front design, but 18 and 19 had the entrance not on either side but in the rear, of all places, where loading at terminals apparently was made easier.

Whatever the loading difficulties may have been, they were solved July 4, 1918, when the two cars met head-on in an accident that destroyed both front ends. Eventually the cars were rebuilt to standard design.

THE ONLY trolley operation left in Rhode Island, a freight switching line at Lonsdale owned by Berkshire-Hathaway, Inc., ended last Dec. 18, reports Norton Clark, 29 Richardson St., Newton, Mass.

Mr. Clark was at the controls on the freight motor, No. 2, on her final run.

Stark Elec. car 19 at Canton, O., in 1917. Only two of this kind were ever built.

RETURNING from a South American railfan trip, Bill Jensen, 140 Callan Ave., Evanston, Ill., recalls some trolley lines that he doesn't think any North American raifan has ever seen.

He mentions, for example, three municipal systems near Sao Paulo, Brazil, all using single-truck open cars, on the route of the electrified Paulista Railroad. He says Campinas has both a city system and an interurban line running 20 miles to Sorocabara. Another town, Sao Carlos, boasts three lines using pretty red cars built in Belgium. It's a hilly place, with all lines terminating at the railroad station. Piracicaba, also hilly, operates three trolley routes.

Sao Paulo, a very large city, has many trolley routes, but as track deteriorates its a policy to abandon the cars to buses. In the car yards Bill saw open car No. 1, freshly painted and ready for shipment to the Branford Electric Museum, which bought it.

At Campos de Jordoa, another hilly town, a line runs to the Central of Brazil Railroad at Pindamonbangaba over private right-of-way. Bill describes its interurban cars as "goofy-looking." There are several city routes here, totaling about 50 miles of track. Farther north he found an old car line between Aparaceda and Guarantingueta, abandoned about a year ago.

At Campo Grande he saw three long country trolley lines using open cars, and at Belo Horisonte he discovered a flock of open cars and some that appeared to be closed cars but had no windows, sash or glass, except on the ends. Salvador has a broken-down system with little service left and lots of bus competition. Vitoria has two long routes with one branch line.

All Bolivian trolleys have been abandoned except for two ex-La Paz cars used on a six-mile line up the mountain from La Paz, an electrified branch of the Peruvian Railway.

New Publications

1959 DIRECTORY OF WORLD ELECTRIC LINES, a revised and reasonably accurate listing in 24 pages, of every trolley and interurban line in the world, has been published by Earl Clark, 144 Glencoe Place, Cincinnati 19, Ohio, to sell at $2 per copy. Even museums and preserved cars are listed. This directory is valuable for reference. A prior issue last year sold out soon after publication.

PORTLAND RAILROAD (ME.) ROLLING STOCK, CARHOUSES, POWER SUPPLY, by O. R. Cummings, is the second part of the story of the Portland trolley lines published on slick paper in Jan. '59 issue of TRANSPORTATION, issued by the Connecticut Valley Chapter of NRHS. Its 34 pages contain excellent photos and rosters of the cars dating from the earliest operation. Another worth-while work by Mr. Cummings.

THE EVANSTON RAILWAY CO., by James J. Buckley, tells the story of this Illinois trolley line in 40 pages, with photos and scale drawings. Also included is the one-car North Shore & Western Ry., an Evanston line that is now forgotten. The Evanston book can be had for $2 from Electric Ry. Historical Society, 7625 W. Gregory Str., Chicago 31, Ill.

The ERHS also has published a reproduction of the Perley A. Thomas Car orks catalog of 1930, twelve pages, with views of cars sold, mostly to southern trolley lines. Price $1.

Soon to go to press is a full-sized book covering every phase of the interurban trolley, tentatively entitled THE RISE AND DECLINE OF THE INTERURBAN, co-authored by Professor George W. Hilton of Stanford University and John F. Due.

Publication by Stanford University Press is due late this year. We have seen a rough copy of the manuscript and can assure you that it covers every detail of the interurban as completely as you'd want. Besides the story of the interurbans and the cars operated, you'll find sociological angles, financing, construction, etc., as well as corporate histories of at least 300 traction companies. More news of this book later.

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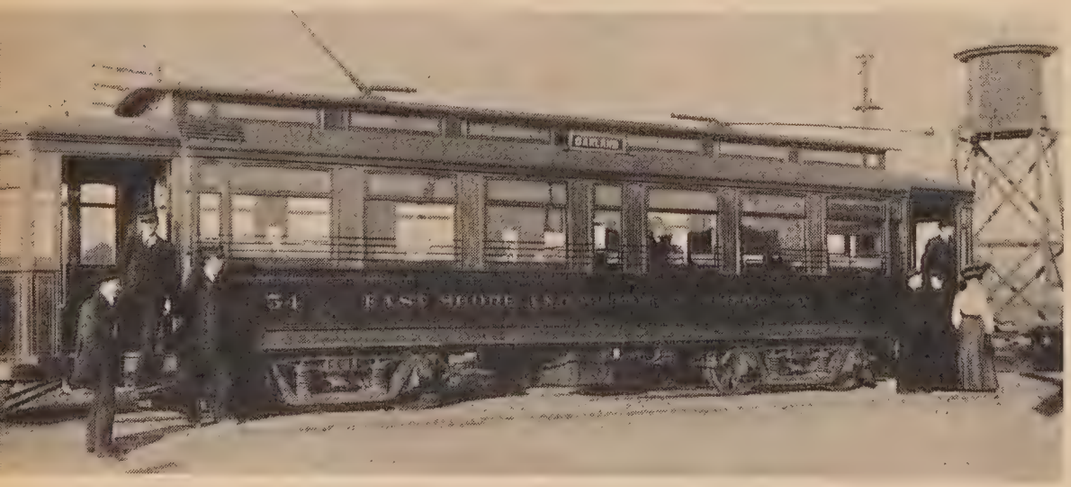
Only a few oldtimers can recall this junction of three electric car routes at Sixth Street and McDonald Avenue, Richmond, Calif., as it looked 52 years ago.

Three photos from collection of Erle C. Hanson, 952 36th St., Richmond, Calif.

Los Angeles type car 48 on East Shore & Suburban Railway enters the underpass beneath Southern Pacific tracks in 1908. (Below) No. 54 at SP depot in 1906.



Trolley Line to SP Depot

by ERLE C. HANSON

RICHMOND, then a newly-incorporated city in the sand dunes west of San Francisco Bay, joined the ranks of streetcar communities May 2, 1904, with the organization of East Shore & Suburban Railway Company. A. S. Macdonald and William G. Henshaw held the franchise for building a single-tracked, standard-gage across a barren stretch of a mile and a half from the new Standard Oil refinery to the Southern Pacific station, and the refinery's president, W. S. Rheem, bossed the job. The company's offices and a small terminal car yard were built in the refinery grounds.

At the beginning of operation, July 8th, there were three California-type cars, Nos. 11, 12, and 14, built by W. L. Holman of San Francisco. Each had doors at both ends but not in the center. Later, a fourth car, No. 16, was bought from the San Francisco & San Mateo Railroad.

The first car to run over the line was gay with flags and streamers and was packed with officials and as many other passengers as could squeeze into it. Richmond's population cheered en masse. Farmers and business men from miles around had driven into town in wagons and buggies, with their families and well-stocked lunch baskets, to ride the newfangled trolleys.

Cars were painted maroon with cream trim and were equipped with destination signs, one of which read, "Southern Pacific Depot."

After three months' operation, the new service was doing so well that steps were taken to extend the tracks to the Alameda County line for connections with streetcars of Oakland Transit Co., Consolidated. This was done in the spring of 1904. While one of the linemen, Arthur Smith, was stringing a trolley wire on the new extension he lost his balance and was killed by falling on the live 600-volt DC wire. This was the company's first fatality.

With completion of the extension in

June, four new cars with high-speed St. Louis 23-A trucks arrived from St. Louis, where they had seen service at the St. Louis Exposition. These were repainted to match the company's colors and were numbered 50, 52, 53, and 54. The latter had large picture-type windows.

After that a new car barn and yard were built near the Southern Pacific crossing and additional rolling stock was acquired from the St. Louis Car Company. Included were nine double-truck Los Angeles types with a five-window front, Nos. 41 through 49. These were used on the original main line while the Exposition cars ran only on the extension.

This procedure was necessitated by a safety rule forbidding loaded trolleys to cross the SP tracks. Passengers who wanted to travel the entire distance had to get out, walk across the tracks at the depot, and pay another nickel for the rest of the way. At the county line it cost a third nickel to ride the connecting trolleys into Oakland.

It was not uncommon for a passenger carrying a loaded shotgun to ask a motorman to stop the car so that he could fire at a scampering jackrabbit. Or the motorman might stop and wait long enough for a passenger, who had left a fishing line dangling into a water hole on a previous trip, to check whether or not he had caught anything.

The company bought seventeen acres of ground that lay a half-mile from the main line and landscaped a beautiful spot which they named Eastshore Park. Then they built a branch line to this park, which soon became a popular site for social and civil events.

An increase of passengers led the company to add another car to the County Line route. As Class 50 equipment was used on this route, No. 41, one of the L.A. type cars, was renumbered for use on that route.

In the fall of 1905 branch lines reached out along Ohio and 23rd streets, the latter being the East Richmond line. Richmond had been incorporated Aug. 7, 1905, and more land was annexed shortly afterward. New streets were laid. By 1907, a third single-tracked branch line had been built on 6th and 8th streets, and connected with the Ohio Street route.

In 1908, the Southern Pacific built an underpass beneath their tracks at the depot, with the agreement that the ES&S Railway maintain it.

In 1910 a fourth line was laid, this one into the foothills to the picturesque Grand Canyon Park, scene of many picnics. During 1910 five more cars were added to the roster. Cars 55 through 57 were purchased from the Danville Car Co., while Nos. 51 and 58 came from American Car Co. Then No. 51 was renumbered 41.

Also, during 1910 the ES&S was acquired by the Oakland Traction Co., but kept its identity until March 21, 1912, when the San Francisco-Oakland Terminal Railway consolidated the ES&S, along with several other roads. This company operated the lines in Richmond until, one by one, each was replaced by motor coaches.

On Nov. 7, 1933, all existing street railway service formerly owned by the Eastshore & Suburban was taken over by buses. Richmond is now "just another bus city." ●

District of Columbia Shortlines

Roster Compiled by Sy Reich

East Washington Railway

Class	Road Nos.	HP	Builder	Bld. Mdl.	Wheel Arngt.	TE	Weight	Dates
——	101	300	GE	45 ton	B-B	22,500	90,000	1946
——	102	300	Whitcomb	65 ton	B-B	32,500	130,000	1944

Washington Terminal Company

RS-1	40-64	1000	Alco-GE	RS-1	B-B	60,000	240,000	1944-1950

Miscellaneous Notes

Roster accurate as of April 1, 1959. Abbreviations: Bld. Mdl.—Builder's Model; Wheel Arngt.—Wheel Arrangement; TE—Tractive effort in pounds; Alco-GE—American Locomotive Co.-General Electric.

East Washington Ry. locomotives are painted green with black cab and underbody, yellow lettering. Washington Terminal Co. locomotives are painted black with yellow lettering. No. 102 is ex-U.S. Army.

E. Wash. Ry. operates 3.5 miles between Chesapeake Jct., D. C., and Seat Pleasant, Md. Principal service is to a power plant with other miscellaneous loadings; is also hauled locally. Washington Terminal Co. operates the Washington Union Terminal and 52 miles of approach trackage and yards. It is owned by the Pennsy and the Baltimore & Ohio and has connections with these two railroads. In addition, trains of the C&O, RF&P, and Southern operate over Pennsy trackage onto the WT tracks to use the Washington Union Station. ●

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RECTAL-COLON
Are often associated with Glandular Inflammation. These disorders, we can successfully treat for you, at the same time we treat Glandular Inflammation.

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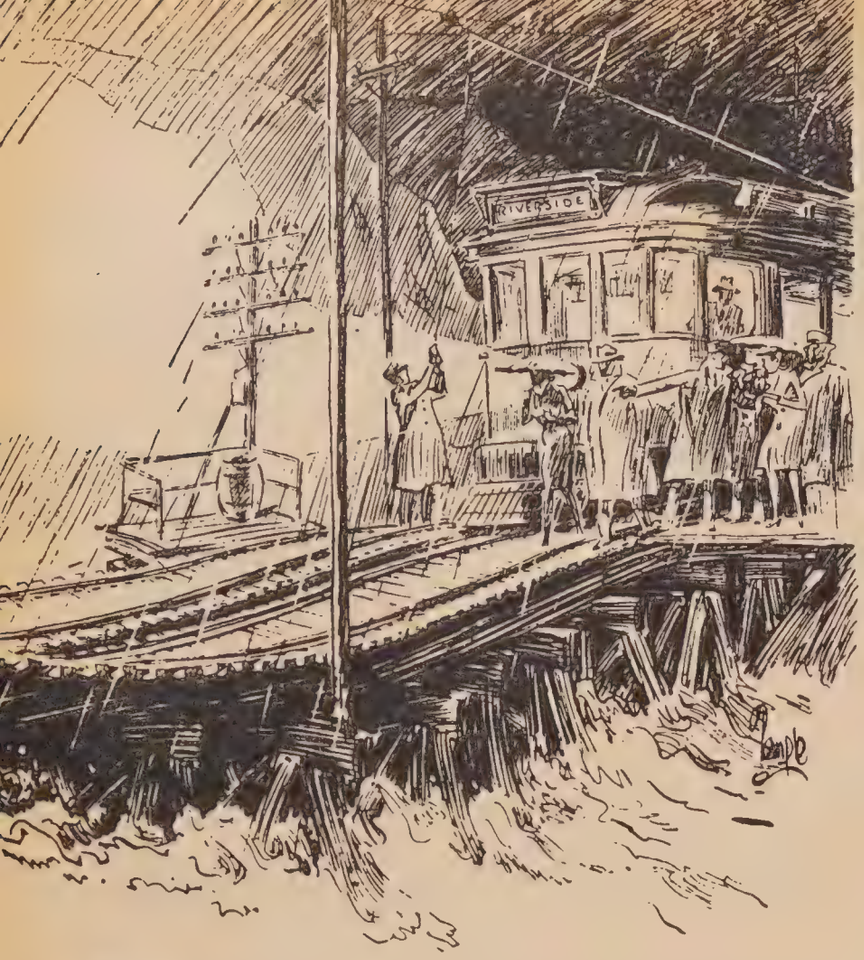

Rain was still beating down when the shuttle car reached the sagging, flood-battered, wooden trestle.

Pacific Electric

Drifting Down the Boomer Trail, Eddie Sand Finds a Juice Line With Many of the Same Problems He Had in Steam Railroading

by HARRY BEDWELL

A RAILROAD classic, copyright 1941 by Popular Publications, Inc.

YOU COULDN'T miss the lusty tempo of this modern juice railway that, in the late thirties, was covering Southern California with a shining steel web.

Eddie Sand, young and redheaded and adventurous, had boomed over many a steam road, pounding brass in busy terminals and lonely way stations. Heretofore he'd always worked within sight and sound of engine smoke, within earshot of haunting steam whistles, but on a sudden impulse one bright June afternoon he and his boomer pal, Wallace Sterling, tall and heavily built, stopped off at Los Angeles and hired out to the Pacific Electric.

"It's a major system," he told Walley, "and we may as well find out what makes it tick."

"We'll give it a whirl," said Walley, "and see what happens."

The big-bodied fellow took a dispatcher's trick on the Southern Division while Eddie, with the face and build of an Arrow collar man, was sent to San Bernardino.

In the gray dark of early morning and high fog, Eddie boarded the paper train, two large steel cars of the 1200 Class. A few sleepy passengers stumbled aboard and collapsed into seats. Bundles and rolls of morning newspapers and mailbags were stacked high in the roomy cars. The train slid down the ramp and swung away across the lower end of town at a quiet, subdued speed. Hazy street lights blinked owlishly.

The conductor took Eddie's pass, scrutinized it, and punched it.

"Going to be a relief agent at San Berdoo," Eddie nodded cheerfully.

Los Angeles dropped behind, and sprawling suburbs edged up to the line in the thinning dark. Now and then the conductor cast off rolls and bundles of newspapers and he paused to stow mail sacks in locked bins by deserted depots that soon would be coming alive with rush-hour traffic.

As soon as they passed El Monte the motorman in his cubicle on the front platform let her out. The train faltered slightly as he shoved down the controller handle. Then the pace quickened with a powerful surge. They sped through a dim landscape of sweet-smelling citrus and walnut groves.

Dull gray fog was flung behind as the foothills intervened between the sea and the inland valley. The sun blazed. Mountains were thrust up on the left, and they plunged through a vast vineyard. The few stops they made were abrupt. From top speed, with one application of the air, the motorman halted the train at exactly the right spot.

"That juice-winder of yours is a little severe with his air, isn't he?" Eddie asked the skipper. "But he's certainly accurate."

"We've got to make time," came the answer, "and that's one way to save the seconds. Over here on the north we do it that way."

The big steel cars moved out from a standing start at a gliding run.

"Now, over on the Southern Division," the conductor went on, "the motorman cuts her down a long way off, then keeps pinching her with several applications. Finally he noses up to a stop. But they've got more time to fool around, I guess."

SAN BERNARDINO was only a swift interlude, a quick image that flickered into the line of other jobs to follow. The station was a huge structure with traffic to move and a thousand items to check.

Days blazed with sun, but in San Berdoo you didn't bother about the heat. Your work was pitched to a keen pace that kept you absorbed. Freight as well as passengers. Citrus fruits had to be moved with speed and precision. Empty refrigerator cars must always be available at the packing houses, and the loads started on their long way promptly. The waybills covering their movements must be rechecked carefully as to routing and icing instructions. Any error was pounced upon by someone along the line and sharply called to your attention.

Usually, as the motorman sounded his gong preparatory to departure, some flying figure, male or female, darted from somewhere, headed for your ticket window. The belated passenger needed a commutation book before boarding the car now ready to depart. And it was a responsibility of agent and clerks to know the name of the rapidly approaching patron and the kind of ticket book desired, and to have it punched and the buyer's name inscribed on the cover. You had to cultivate a memory for faces and a deft accuracy with the ticket punch.

Eddie Sand soon discovered there were only minor differences in running stations for steam and juice railways. Waybills, abstracts, cash books, balance sheets, and monthly reports were standard forms in both kinds of transportation.

Being a relief man he was, of course, transferred from one station to another for short periods, replacing the regular agents who were away for vacations or illness.

Covina and Glendale, Berea and Yorba Linda, Santa Ana and Van Nuys differed only in size and a few details. At Huntington Beach and Redondo you encountered the tourists, the weekend excursionists in droves who come to swim in the sparkling blue surf and picnic on the white beaches. Even the traveling auditors, who checked you so carefully in and out of the stations, showed occasional glimmers of human feelings.

Eddie took it all in his stride. He had come a long way in the railroad game, part of that way with Wallace Sterling. He and Walley visited each other now and then. They would pick up willing girls to make a foursome and they enjoyed the night spots of Los Angeles as well as the quiet woods and streams to the north, depending upon their moods.

Weeks and months, hardly reckoned, slipped back into eternity. The clang of gongs and the purring of motors gradually wove their notes into the background of Eddie's consciousness. They dimmed but never completely obscured the memory of steam-powered hotshots roaring over the glinting rails of mountain, desert, and prairie.

Things were placid here on the Pacific Electric. The stubborn, sullen gring of the big juice locomotives as they swung out with their heavy loads punctuated the flow of time and lulled him into contentment. They subdued, for a time, the old restless urge.

EVIDENTLY Sixth and Main in Los Angeles had decided that Eddie Sand was worth his pay, for they continued him on the extra list after most of the regular agents had finished their vacations.

Early in December, he went to Whittier to relieve a man who had been sent to the hospital. Whittier was a nice little city spread on a slope of the Puente Hills, surrounded by colorful citrus groves and oil-well derricks sprouting from the upper reaches above. It had a busy station, with an assistant, a ticket clerk, a warehouse man, and an express driver to help.

Eddie slipped into the endless routine. The holiday rush of express shipments kept the men working long, hard hours for ten days before Christmas. But the business netted Eddie a fat commission and a stealthy feeling of prosperity.

Around Yuletide the winter rains set in—two days of it instead of the white blizzards to which Eddie had

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been accustomed in the prairie states. The newspapers were speculating on whether or not Pasadena's annual Tournament of Roses and the Rose Bowl football classic would be drowned out. But the sky cleared partially on New Year's day, and rain was withheld during the gay parade and for most of the game.

Late in the afternoon came a hard downpour. The ground was already soggy. Eddie Sand, reading a book in his boarding-house room, began to get uneasy. Years of railroading had made him wary of the elements on a rampage.

He put down his book at last, slipped into his coat, and went out. The rain lashed his face and ran in rivulets from his hat. A big red electric car pulled slowly up the hill, its headlight a blurred disk.

In the waiting-room he twisted the crank of the wall telephone to call his friend Walley, who was dispatching on the Southern Division.

"This is Eddie," he said. "Does the deluge mean anything to your streak of rust?"

"The brass collars seem to be worried," Walley growled back. "Engineer's office is working tonight and they've called some of the section crews. Nothing's come apart yet, but it might."

"Any use of my sticking around in case of need?" Eddie asked.

"Naw!" said Walley. "You run home and hit the hay."

"What about this line, the Whittier line? Any signs of it going out?"

"They say there's too much in the Rio Hondo and the San Gabriel River, but I don't know of anything you or I could do about it."

Eddie turned homeward. All that night he was conscious of the ominous drumming on his roof and the moan of gusty wind. His senses, alert to the unusual, wouldn't let him sleep soundly. At five in the morning he slid quietly from bed, turned on the gas under the coffee pot, and began to dress. Fifteen minutes later he was on his way.

WIND growled sullenly. Dull clouds hung down to the tops of drenched street lights. Rain raked the deserted streets in hissing salvoes. As Eddie approached the station, he saw the first Los Angeles-bound car drift down the hill, torrents of water racing beside it along the curbs.

He slapped into the waiting-room, took down the receiver of the dispatcher's telephone, and listened. The wire was lifeless. In the office he lit the gas heater and dried himself. The sputtering gas flames had little effect on the damp chill.

Gray darkness paled a little as dawn came on. Early commuters stamped into the waiting-room. Another car drew up from the yard and took these passengers aboard.

You felt helpless when wires were down and storm battered the thin line of rails. That was the strategy of the elements—to block you off without communications and let you imagine the worst.

The assistant agent came in, sputtering and dripping. "Swell weather for fish!" he shouted, and clung to the gas stove. An express driver parked his light truck beside the station and entered the office. Then the ticket clerk stamped in.

A low, stubborn grind of flanged wheels grew through the wash of rain, and a car nosed up before the station, its open section piled with U. S. mail. Half a dozen passengers got off.

The express driver headed his truck up to the side of the car, and the conductor stacked it with mail sacks. The truck pulled away to the post office. Ducking across the pavement, the conductor slammed into the waiting-room. He tried the dispatcher's telephone, cursed it, and strode into the office.

"You guys can sit back and relax," he said. "You won't have anything else to do from now on, 'cause we can't use that San Gabriel River bridge if this moisture keeps on."

"Is she getting rickety?" Eddie asked.

"And how!" the conductor said.

"Did the dispatcher tell you anything when you left Los Angeles?"

"Sure. Take it easy."

"Aren't there any operating officials out on the line?"

"Not yet," the conductor stated. "This storm has been tearing up everything. The Long Beach and San Pedro lines are out, and the Santa Ana line's cut in a couple of places. There's also a semi-annual high tide just now along the coast, and with this wind behind it the ocean is coming away inshore. It's done a lot of damage to the Newport line."

Ragged gaps were being cut in the web of busy steel. Men had to spread their efforts out over expanding areas. Eddie slid into his coat and turned to his assistant, Ralph Snyder.

"Ralph," he said, "I'm going back with this car to take a look at the San Gabriel bridge. You stick around."

TWO DOZEN drenched passengers boarded the car. Eddie stood on the head end beside the motorman as they coasted downhill. They swerved across the highway and onto the private right-of-way. The motorman gave the controller valve a couple of points, and they rolled at half speed through the wet, gray gloom.

"This damned track is adding soft spots fast," he grumbled.

They passed an outbound car under reduced speed. At Los Nietos they picked up four passengers huddled under the shelter. Soon they were approaching the San Gabriel bridge cautiously.

A misty figure in streaming slicker waved them down and climbed up on the front step. He hung from the gate bars and blew water from his dripping nose. It was Tom Fleming, assistant trainmaster. The conductor came forward from the rear end.

"Hello, Eddie!" Mr. Fleming greeted, and glanced at the trainmen. "That inbound side of the trestle is bending like a horseshoe. Engineer says we can't use it any more. So you'll have to cut over to the outbound track to cross the river, then go back on the other side."

There was a crossover at either end of the trestle, and a circuit on which signal lights in boxes on line

poles could be cut in and used to protect one-way traffic.

The conductor, going back through his car, swung outside onto the top of the folded rear fender. Mr. Fleming dropped off at the crossover and opened the switch. Eddie stepped down to the mud.

Slowly the car headed through to the opposite track. The conductor pulled the trolley pole down as the car slowly eased over. Then he set the wheel on the wire again. The car rolled on through the rain with a booming hollow sound as it crossed the long trestle.

"Want to see the San Gabriel when she's really a river?" Mr. Fleming asked.

They splashed out onto the inbound trestle. The wide bed, usually a dry wash, was now alive with churning water, tumbling madly on its short way to the sea.

"You'd not think the old gully could ever be this wet," the assistant trainmaster said cheerfully.

The pilings, the legs of the trestles, were set at short intervals, and the vents between weren't wide enough to clear the rubbish caught in the flood. Driftwood clung to the pilings and the current wedged it into a slowly-forming dam. The water, backed up behind this solid obstruction, exerted a steady pressure that was tilting the pilings inward. But this dam protected the lower, the outbound trestle, and it was not yet affected.

At the farther end of the trestle, where the current was swiftest, gandy dancers with long poles were trying to keep the refuse moving through a few of the vents.

Boxes, barrels, parts of collapsed buildings, crates, all the litter caught by the suddenly flooding stream, came tumbling down to lodge against the growing dam, or to race through the open vents.

"Has this sort of thing ever happened before?" Eddie asked.

Mr. Fleming nodded. "Yes, but not so bad. This railway is out of business in some places right now."

A GIANT uprooted oak tree rolled swiftly along the current. Its thick limbs, thrust up above the crossties, clung to the beams of the trestle. Branches entwined themselves among the pilings. The structure grunted. Current caught the huge butt and swung it around in a savage arc, driving it against the timbers. It battered them with unrelenting blows. Pilings were torn up from the river bank.

"From here out," the assistant trainmaster said, "we'll have to walk the passengers across. No more cars can run here till we've used a pile-driver."

"What do you mean, walk the passengers across?" Eddie asked.

"Stop the cars short of those sags," said Mr. Fleming, "let the passengers hike across, and pick them up on the other side. It's been done before."

Eddie checked the length of

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drenched structures. "Mister, they're sure going to get rain-soaked if they have to walk all that distance between cars. There'll be plenty of complaints."

The assistant T.M. nodded. "Anyhow, we can run the cars from the Whittier side out on the trestle almost to the weak spots, so they won't have to walk far."

He conferred with the section foreman and then hustled him and his crew away on their hand-car to fetch timbers and planking from the nearby Los Nietos supply yard.

They returned at once with the material and quickly built a loading platform connecting the two bridges near the sags. Pretty soon an inbound train muttered out of the rain. An outbound called as it approached from the west.

Mr. Fleming said: "Eddie, will you run up there and meet that outbound train at the signal box and tell him he'll have to transfer his passengers and turn around here? If he has any mail or newspapers, the section gang will run them across on the push-car."

He turned back across the bridge to meet the inbound. Eddie splashed over the sag in the trestle and intercepted the outbound.

Conductor and motorman leaned from the front vestibule of their car and took his instructions calmly. They'd known previous California floods. The conductor explained the plan to his passengers. They took it with good-natured protests and began to unload in the rain. They streamed out across the outbound trestle, the men helping the woman over the slippery ties, and Eddie followed.

The inbound train had come out upon the bridge and was unloading its passengers on the new platform. The two groups mingled and separated again, jesting and hurrying to the shelter of the cars.

Mr. Fleming turned to Eddie. "If the Rio Hondo bridge goes out, too, I don't want to be caught without a car between them for shuttle service. You stay here and keep the trains lined up while I run down to the other bridge and see what it looks like. The dispatcher's telephone is still out, and we've got to handle this ourselves."

The motorman changed ends, cut out the head end, took his controller, airbrake handle, and stool to the other end, and cut that end in instead. The conductor rang two bells from the rear platform, and the car moved away into the dreary drench. Mr. Fleming crossed to the other car.

The river was still rising. It was gouging deeper into the embankment of the west approach. Eddie supervised the transfer of passengers.

Mr. Fleming came back on the next outbound. "That Rio Hondo bridge doesn't look so good," he reported. "I'm not taking a chance. Beginning right now, I'm going to use this car as a shuttle and transfer passengers across the Rio Hondo, too."

Eddie remarked, "I'd better be getting back to my own job."

Mr. Fleming nodded. "We'll transfer everything—passengers, mail, and express. But you won't have any freight business at Whittier till the bridge is in again."

Eddie climbed aboard the Whittier-bound car as it pushed back the rain.

BUSINESS moved listlessly about the station. The storm and the end of the holidays had depressed all activities, but the telephone kept ringing with queries about the service. Eddie cleaned up his monthly reports and answered correspondence.

He sent out mail and express on his 11:15 shuttle and on its return the open section was loaded with the same. The warehouse man and the driver transferred the express to the wareroom on hand trucks. Eddie stripped the shipments of waybills.

Afternoon papers told of the storm's ravages. All Southern Pacific and Union Pacific lines in that area had ceased operating. Even the Santa Fe's main stem eastward via Pasadena was out, but the line through Fullerton to San Bernardino was still intact, and Santa Fe trains were being routed that way. The Pacific Electric tracks were torn to shreds, highways were flooded, bridges washed away. Nearly all traffic was blocked. Los Angeles was almost isolated.

At five o'clock the conductor of the shuttle brought his car back from the San Gabriel and reported to Eddie: "The bridge is out. We can't use it again till it's cobbled up. Tom Fleming has tied up everything on the Whittier line and gone back to town. Said to tell you to sit tight till the rain ends and the line is reopened. Mister, the commuters in Los Angeles are going to be as sore as hell when they learn they can't get home tonight."

You couldn't believe that such a paralysis could strike a busy pike without your being able to do something about it. Eddie put in a long-distance call for the Southern Division dispatcher on duty. Telephone service was badly disrupted; it was forty minutes before Wallace Sterling came on the phone.

"Look," Eddie pleaded, "do we have to cease operations till this wet weather says we can begin again?"

"You figure it out," said Walley. "I dispatch trains only when they're running, which they're not doing right now. Why don't you use your well-known ingenuity? You've been in jams before."

"Sure!" Eddie said bitterly.

Walley chuckled. "This big station is like a morgue tonight. You could shoot a cannon in the waiting-room and likely not hit anybody. Most of the brass collars are out on the line. Why don't you go home and forget it?"

Eddie said he would, and hung up. He closed the Whittier depot.

NEXT morning the rain had dwindled to gusty showers. Eddie Sand was early on duty. A few hopeful commuters turned up. It was depressing to tell them there'd be no service. The driver decided it was a good time to clean up the express room and grease his hand trucks.

Eddie had been marooned by storms before and hadn't fretted at train delays. But to cut off the Pa-

cific Electric's fast and frequent service, always crowded, affected a lot of people's daily lives.

Four 800-Class cars and three regular crews whose runs began at Whittier were tied up here. Their crews gathered in the office and sat about joking, gossiping, and lamenting lost time. Eddie filed tariffs glumly. How were you going to use ingenuity against all this water?

A brief sound drifted in through the gusty rain, a note as familiar as his own pulse. The boomer listened. If that wasn't a steam locomotive whistle it wasn't anything. And it indicated that rail traffic was on the move somewhere.

"Where's that whistle coming from?" he asked the chattering trainmen.

They hushed and listened. At intervals, in the wind, the faint sound came again.

"Must be the Santa Fe going through Los Nietos," a motorman guessed. "Last night's paper said the line via Fullerton was still operating, with all eastern trains routed that way."

"Then," said the boomer, "if that line is open, their regular local service would be running, too."

Los Nietos was only a few miles from Whittier. The Pacific Electric crossed the Santa Fe near there and a paved highway connected with the interurban's passenger stop. Eddie called the Santa Fe station agent at Los Nietos.

"Mister," he said, "do I hear trains moving on your railway?"

"Yeah," answered the agent, "but don't take it hard. You people really have the best of it. Not a thing to do. Me, I got to herd all the mainline trains from the Pasadena side plus my regulars. They're keepin' this single track hot."

Eddie had a shrewd idea. "You've got plenty of trains. Maybe you need more business. How about a shuttle service between you and me to connect with your local passenger trains to and from Los Angeles? That way I could move all my express and mail, besides all the passengers who'd want to go that way."

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"Fine!" the Santa Fe man said. "You fetch them over and haul them away. We'll transport your dead freight and live people."

He gave Eddie the schedule of his local passenger trains.

"Okay," the boomer agreed joyously. "We're heading your way."

He hung up the receiver and looked at the idle PE trainmen. "Who's first up?" he asked.

They had been listening to his end of the telephone conversation and now they eyed him dubiously.

"Johnson and me is first up," Conductor Maguire said at last, "but I don't know about going on a shuttle service between here and Los Nietos. You need authority from the Old Man. He gets tough when you step out of line."

"He's out on the road somewhere," Eddie said, "and it would take all day to locate him. Meanwhile, let's get the wheels rolling to handle the business."

"Take it easy, Eddie," Maguire warned. "A lot of brass collars at Sixth and Main will look this over close and critical, and I don't think we've ever done anything like this before."

"We'll find out about that later," Eddie said. "I'll take the responsibility. If you and Johnson are first out, the two of you bust down to the yard and bring up a car and leave here in time to catch the 9:10 Santa Fe from Los Nietos to Los Angeles. Then wait for the 9:45 from the city, and come back."

The boomer had it all figured out.

Johnson shifted uneasily. Then he cut in: "Listen, Eddie, we need the work, but I don't think Superintendent Donaldson would like it."

Eddie was patient. "It's up to me," he said. "We're supposed to take care of the business the best we can. You're not refusing to take this run out if I say so, are you?"

Johnson softened. "I guess not," and Maguire nodded approval.

"Okay, then. Get your car around here. You haven't much time." The boomer turned to his assistant.

"Ralph, here's our new shuttle schedule. Call up the newspapers and give it to them. Then call all the commuters you know. Spread the news."

TEN passengers strayed in and hopefully took the first car out. Eddie chalked his new schedule on the blackboard in the waiting-room. Then he phoned the postmaster to suggest that the U. S. mail be detoured to the new setup. After that he put in a long-distance call to American Railway Express at the Arcade Station in Los Angeles. A distracted clerk answered him.

"What about forwarding my express shipments via Santa Fe to Los Nietos?" Eddie said. "I could pick them up there."

"Gosh!" groaned the clerk. "I don't know."

"Let me talk to the depot agent or somebody else in authority."

"The route agent is around here some place. I'll see if I can find him."

Route Agent Corwin came on the wire. "Sure," he said. "That's fine. You're meeting all the Santa Fe locals? We'll depend on it. I'll load your stuff out on the next one. Good boy, Eddie!"

They should know about this at Sixth and Main, Eddie thought, *but the superintendent isn't in. I don't want to talk to anyone with lesser authority. These underlings are too cautious and they might put the brakes on my arrangements. Still and all, somebody should know.*

The picture of the golden-haired girl at the information booth flashed into Eddie's mind and he grabbed the phone again.

Her voice was reassuring. "Good! Now give me that schedule again. The Whittier people will be glad of this. A lot of them here want to go home at night. Let me know of any changes. I'll spread the word around."

Eddie went into the express room where the driver had stacked the outgoing shipments.

"We'll load this on your truck and drive over to catch the 10:40 into town," he said, "and we'll wait for the outbound."

They snugged the express matter under a tarpaulin and took the warehouse man along. The second shuttle car departed as they drew away from the station. There was nearly a seated load. Wind tossed brief showers over the drenched landscape. The driver took an oiled road, easing the light truck through flooded drainage dips.

The car had arrived at the crossing ahead of them. Passengers streamed along the highway toward the Santa Fe station and crowded into the waiting-room.

Eddie made himself known to the agent as he entered the office. It was like coming back to the old homestead. The dingy fixtures were the same as in a thousand other depots . . . familiar smells of inky copying clothes and wet batteries . . . restless movements and subdued voices in the waiting-room.

A main-line limited, eastbound, called for the board, its whistle pounding stifled echoes through the wind. The semaphore lever rasping as the agent pulled in the signal had the old, cordial sound. Even the proudest train bowed to the authority of that painted strip of metal.

As soon as the local passenger train rolled in from the east it took Eddie's passengers aboard. The driver drove his truck alongside the express car and hastily loaded it.

The outbound local was twelve minutes late. The driver handled the mail to the Pacific Electric car waiting at the highway crossing, while Eddie and his warehouse man unloaded the express on two hand trucks. Then they hitched the hand trucks to the motor truck and pulled them down the highway.

"Nice thing for a new uniform," the conductor growled as they shoved the last piece of express to him through a window of the open section.

"Wear your overalls next time," Eddie advised with a grin.

He didn't expect to be taken seriously, but the conductor was peeved.

"Yeah, and what'd the Old Man say if he caught me working in overalls?"

"I'll take care of that."

The conductor dried his hands and stared at the agent. "You're taking in a lot of territory," he said.

THE ENSUING DAYS were made exciting by a diversity of problems as Eddie Sand organized and maintained a joint service with the Santa Fe. The storm subsided, but still he worked in a remote, restricted circle, preserving the lean thread that connected it with the outside world.

For a while Sixth and Main ignored the Whittier situation. Evidently the officials there were too busy, but they'd get around to it when more important items had been ironed out.

You can't be sure how the brass collars will react till they confront you with a decision on your handling of operations. Then, if they disapprove, they are likely to be harsh. Eddie had been through that sort of thing before. Sometimes it doesn't pay to show initiative, but he was willing to take chances.

Meanwhile, it was encouraging to note how people rode his makeshift service and their quiet ways of endorsing it. The older men, some of them executives in the city, paused for genial remarks. A girl department-store buyer, brisk and business-like, gave Eddie crisp nods and social opinions on the weather. You like to be appreciated.

At length the flood receded. Extra gangs and work trains moved out over the broken lines. On the fourth day, from Los Nietos, Eddie heard the snort and stamp of a pile-driver working at the San Gabriel bridge. Highways and rail lines were returning to normal.

On the fifth day, in mid-afternoon, the first Pacific Electric car got through from Los Angeles. It came in behind his shuttle and stopped before the station. Alec Donaldson, the division super, got down and came into the office.

"We have your line open now," he said, "with a single track across the

two bridges." He had tight furrows about his eyes and a tired list to his shoulders. "How are your crews lined up? We want to start regular service just as soon as we can get it organized."

Eddie gave him the score.

"Can you have them all called out and put back on their runs?" the superintendent asked. "The dispatcher's phone will be in shortly; but until it is, will you keep things moving here?"

Eddie agreed, and Mr. Donaldson turned away, preoccupied. "I'm going on down the La Habra line," he said.

The boomer felt disturbed at the super's attitude. Not even a casual word of approval for what he had done. In a way, this juice line and these communities had gotten under his skin. He'd become so engrossed with them that the old urge to roam hadn't stirred at all. Now that the pressure had eased up, things were different.

Eddie turned again to his desk and put it in order, taking out his items of personal equipment.

Mr. Donaldson's voice broke through his brooding. "You would have heard from me before this, Mr. Sand, except that Walley Sterling said it wasn't necessary. He said you could handle things out here, whatever happened. And Walley is usually right. So, being neck deep in trouble, I let it go at that."

The network about his eyes relaxed in a slight smile. Then he tramped wearily out to the car and climbed aboard. The redheaded boomer returned the little items of personal equipment to his desk.

EDDIE leaned on a switchboard and stared down at the top of Wallace Sterling's head as the dispatcher bent an ear to eerie voices that flitted from the muffled loudspeaker horn. Walley thumbed switches as red dots glowed and died on the board. The room was ghastly under the stark glare of big electric globes.

"'Spatcher!" Walley muttered.

"This is Wright on the 763 with the 1011 at 18 with 42," the horn droned.

Walley rotated the big train sheet with left thumb and forefinger and stabbed in a black entry. Then he barked at the transmitter, "What made you thirty-two minutes late?"

The disembodied voice reported: "A truck on the highway just this side of Wilmington crowded us too close and took off part of the right front steps."

Walley was asking the questions.

"Did you get the dope on him?"

"Yeah, and ten witness cards signed."

"Make an accident report?"

Walley was in a glum mood, which was unusual. Eddie studied him apprehensively, and said: "It's my day off tomorrow. I thought I'd pick up a girl and ride down to Venice for a swim, and maybe dance and have a fish dinner. Want to come along?"

Walley grunted.

The speaker mumbled: "Carlson on the 276 with car 801. The pump keeps running and the motorman can't stop it. How about a change-off? We'll be in at 15."

"I'll try," Walley said. He flipped a switch, and the speaker answered his ring with a brisk, "Stationmaster!"

"Yeah," said Walley. "Change off the 801 in at 15. Pump won't stop working."

"I ain't got anything to change him off with right now," the voice blared.

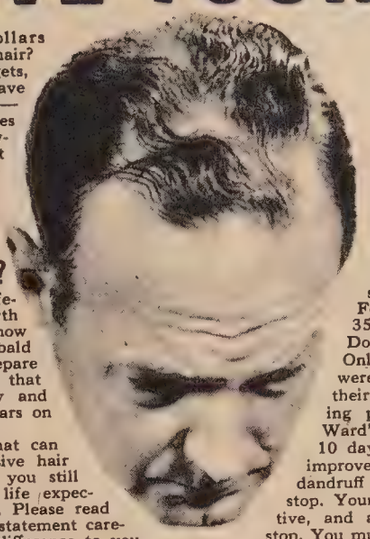
"That comes under the head of your hard luck," Walley snapped, and cut the connection. He looked at Eddie.

"The other day," he said, "I was talking to a brass pounder who's been wintering here, and now he's going back to work for a logging road in British Columbia."

An impatient voice blared out of the speaker: "Hey, dispatcher! Slawson tower won't answer me."

"What in hell do you want me to do?" Walley yelled. He turned to Eddie again. "He was telling me that

WILL YOU SPEND $2 TO SAVE YOUR HAIR?



How many hard-earned dollars have you spent to save your hair? How many hair tonics, gadgets, restorers, electrical devices, have you tried in the last few years—with no success? How many times after an unsuccessful hair-growing attempt have you sworn not to spend another cent on another hair treatment?

Yet, you buy the next product that comes on the market with hair-growing claims.

CAN YOU GROW HAIR?

Doctors who have spent a lifetime studying hair and hair growth have concluded that nothing now known can grow hair on a bald head. So, if you are bald, prepare to spend the rest of your life that way. Accept it philosophically and quit spending hard-earned dollars on hair growers.

If you can't grow hair—what can you do? Can you stop excessive hair loss? Can you save the hair you still have? Can you increase the life expectancy of your hair? Probably. Please read every word in the rest of this statement carefully, since it may mean the difference to you between *saving your hair* and losing the rest of it to eventual BALDNESS.

HOW TO SAVE YOUR HAIR

Itchy scalp, hair loss, dandruff, very dry or oily scalp, are symptoms of the scalp disease called seborrhea. These scalp symptoms are often warnings of approaching baldness. Not every case of seborrhea results in baldness, but doctors now know that men and women who have this scalp disease usually lose their hair.

Seborrhea is believed caused by three parasitic germ organisms (staphylococcus albus, pityrosporum ovale, microbacillus). These germs first infect the sebaceous glands and later spread to the hair follicles. The hair follicles atrophy, no longer can produce new hairs. The result is "thinning" hair and baldness.

But, today seborrhea can be controlled—quickly and effectively—by treating your scalp with the amazing scalp medicine called Ward's Formula.

DOUBLE MONEY BACK GUARANTEE

In seconds, Ward's Formula kills the three parasitic germ organisms retarding normal hair growth. This has been proven in scientific tests by a world-famous testing laboratory (copy of laboratory report sent on request). Ward's removes infectious dandruff, stops scalp itch, brings hair-nourishing blood to the scalp, tends to normalize very dry or oily scalp. In brief Ward's Formula corrects the ugly symptoms of seborrhea, stops the hair loss it causes. Ward's Formula has been tried by more than 350,000 men and women on our famous Double-Your-Money-Back Guarantee. Only 1.9% of these men and women were not helped by Ward's and asked for their double refund. This is truly an amazing performance. Treat your scalp with Ward's Formula. *Try it at our risk.* In only 10 days you must see and feel the marked improvement in your scalp and hair. Your dandruff must be gone. Your scalp itch must stop. Your hair must look thicker, more attractive, and alive. Your excessive hair loss must stop. You must be completely satisfied—in only 10 days—with the improved condition of your scalp and hair, or simply return the unused portion for Double Your Money Back. So why delay? Delay may cost your hair. Ward Laboratories, Inc., 19 West 44 Street, N. Y. 36, N. Y. © 1956

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Rush Ward's Formula to me at once. I must be completely satisfied in only 10 days or you GUARANTEE refund of DOUBLE MY MONEY BACK upon return of bottle and unused portion.

Name _____

Address _____

City _____ Zone ____ State _____

☐ Enclosed find $2, send postpaid (check, cash, money order)

☐ Send C.O.D. I will pay postman $2 plus postal charges. Canada, foreign, APO, FPO, add 50¢ — No C.O.D.

DOUBLE MONEY BACK GUARANTEE

there are a lot of soft telegraph jobs up there. And it's a swell country—lakes and streams, and fishing. You know, Eddie, California is a mighty dry country."

"Yeah," Eddie agreed, "except we've got an ocean close at hand."

Walley sighed. "This job will get you talking to yourself if you stick here long enough."

Floodlights washed over the busy platform below. The gleam of buttons and braid twinkled on blue uniforms. Dimmed headlights moved up the incline. The silken drone of motors and the sounds of the restless traffic surged up from the ramp.

The surge of traffic; Eddie Sand's thoughts went adrift long the careless road he'd come. Bright moments bloomed along the way, abrupt flashes when you lived sustained periods of time in split seconds—and then the long, lazy drift down the boomer trail.

Pictures of great trains with long billowing smoke plumes heading swiftly into the prairie dusk, and stubby freights with three blasting engines crawling up a grade.

The air had the mingled smells of sea fog and the parched winds of the desert. And another faint odor that always came with the season, no matter where you were. Spring had crept in stealthily. It had incubated the microbe that was setting Walley on his way to see what lay beyond the next ridge.

The dispatcher mumbled: "How about going up to British Columbia with me? We've been here a long while, Eddie, and this time of year the birds and boomers migrate. You'n me were never meant to be home guards."

But juice-line traffic has its own emphatic tones, Eddie was thinking in rebuttal, *a sustained, quick cadence that can pick you up and take you along.* The sound of it was streaming up to him now.

"I guess not yet." He fumbled for words. "Maybe later. Send me a wire from Canada. Tell me what it's like up there. I think I'll stay here a while longer with the Pacific Electric Railway." ●

Steamer helps diesel locomotive with the Santa Fe's *El Caputan* in Cajon Pass.
Photo by the late H. Sullivan

SANTA FE RAILWAY SYSTEM

STEAM LOCOMTIVES

2-6-2 (Prairie) Type

Class	Road Nos.	Cyls.	Dri.	BP	Weight	TE	Builder	Date
1000	1010	23½x23	70	200	237,300	37,500	Baldwin	1901

4-8-4 (Northern) Type

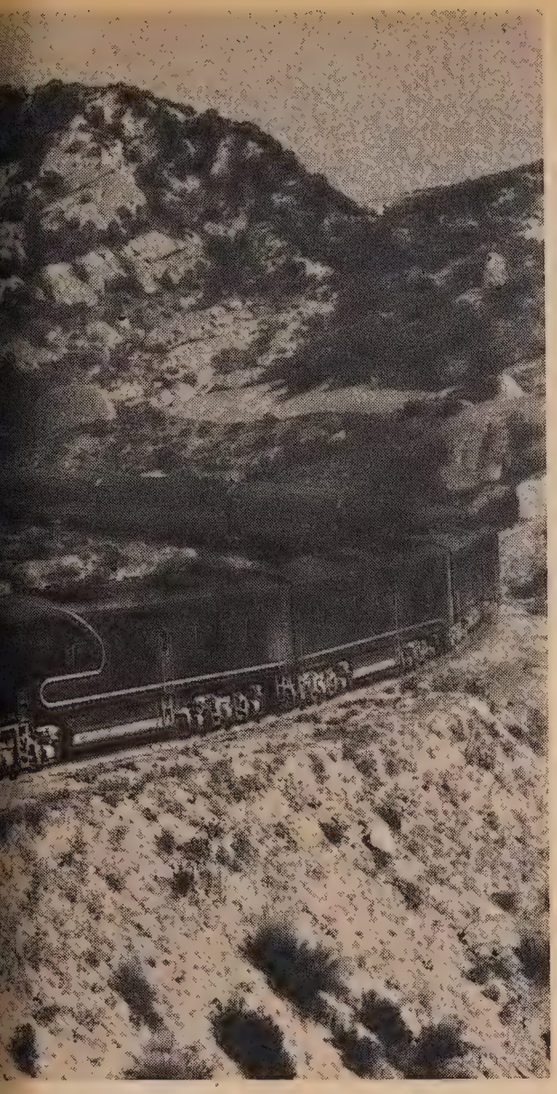
2900	2900-2925 2927-2929	28x32	80	300	510,700	66,000	Baldwin	1943-'44
3751	3751-3753 3763	30x30	80	230	468,800	66,000	Baldwin	1927-'29
3765	3765-3775	28x32	80	300	499,600	66,000	Baldwin	1938
3776	3776-3784	28x32	80	300	494,630	66,000	Baldwin	1941

2-10-4 (Selkirk or Texas) Type

5001	5001-5010	30x34	74	310	538,520	93,000	Baldwin	1938
5011	5011-5035	30x34	74	310	538,000	93,000	Baldwin	1944-'45

DIESEL-ELECTRIC LOCOMOTIVES

Class	Road Nos.	HP	Builder	Model	Whl. Arrgt.	TE	Weight	Date	Note
11	11-15	2000	GM-EMC	E-6A	AIA-AIA	53,925	316,700	1939-'42	1,s
11	11A-13A,15A	2000	GM-EMC	E-6B	AIA-AIA	51,600	305,400	1939-'41	2,s
16	16-21 16C-21C	1500	GM-EMD	F-3A	B-B	61,875	247,500	1946	
16	16A-21A 16B-21B	1500	GM-EMD	F-3B	B-B	61,600	246,400	1946	s
16	22-36 22C-36C	1500	GM-EMD	F-3A	B-B	61,150	244,600	1948-'49	



Miscellaneous Notes

ROSTER compiled from data supplied by Santa Fe Public Relations Dept., is accurate as of Jan. 8, 1959. It includes all locomotives operated on the AT&SF, the Panhandle & Santa Fe, and the Gulf, Colorado & Santa Fe, all of which belong to the AT&SF System.

Abbreviations used: BP—boiler pressure; TE—tractive effort; Whl. Argt.—Wheel Arrangement; GM-EMC—Electric-Motive Corp.—General Motors; GM-EMD—General Motors—Electro Motive Division; Alco-GE—Americal Locomotive Co.—General Electric; FM—Fairbanks-Morse; Dav-Bess—Davenport-Besseler Corp.; Whitcomb—Whitcomb Locomotive Works; Alco Pr.—Alco Products; BW—Baldwin-Westinghouse.

Passenger diesels are painted red and silver, with yellow and black striping, silver underbody, black lettering. Freight diesels, blue and yellow, with contrasting lettering, black underbody. Yard and road switchers, black with white striping, lettering, and insignia.

(1)—11 wt. 306,900, TE 51,650. 15 wt. 313,300, TE 52,650.

(2)—11A wt. 303,900, TE 51,100. 12A wt. 309,500, TE 52,775.

(3)—59-62, 75-78 wt. 318,400, TE 52,325.

(4)—59A-62A wt. 312,400, TE 52,100.

(5)—Rebuilt from AT&SF 1-9, 2A-4A; see renumbering for details. These were originally builder's model E-1A, except 2A, which was an E-1B, built in 1935, '37, '38.

(6)—Rebuilt powered by EMD, 1750 hp. 51C wt. 320,620, TE 53,500.

(7)—107 scrapped in 1954. 100, 100A, 100B, 180A rebuilt into 732-735. 142C, 158-168, 159C-161C, 163C, 164C, 186-189, 189C wt. 242,000, TE 60,500. 158A-168A, 158B, 162B, 165B-167B, 186A, 186B, 188A, 188B, 189A wt. 239,090, TE 59,770.

(8)—244-249, 252-268 wt. 249,700 TE 62,425. 269-280 wt. 245,500 TE 61,375. 269C-280C wt. 246,300, TE 61,575. No units numbered 205,205C.

(9)—205B,C, 241B,C scrapped in 1955. 244A-249A, 252A-268A are s, wt. 249,230, TE 62,310. 269A-280A are s wt. 250,000, TE 62,500. 269B-280B wt. 246,550, TE 61,637. No units numbered 205A, 205B.

(10)—559-561 wt. 246,000, TE 61,500.

(11)—Ex Alco demonstrators DL-600—DL-601, acquired in 1955.

(12)—Rebuilt in 1957 to 900 hp., model SW-900.

(13)—726-731 are s, wt. 254,000, TE 63,500.

(14)—2100-2109 wt. 358,250, TE 89,560. 2152-2156 are s wt. 364,650, TE 91,160. 2157 was an Alco demonstrater.

(15)—Alco demonstrator from TP&W.

(17)—2606 acquired second hand from Baldwin in 1950.

(18)—2650-2654, 2848, 2879-2893 are s, wt. 258,100, TE 64,525.

s—equipped with steam generator.

Roster by Sy Reich

16	22A-36A 22B-36B	1500	GM-EMD	F-3B	B-B	62,000	248,000	1948-'49	s
37	37-47 37C-47C	1500	GM-EMD	F-7A	B-B	61,250	245,000	1949,'52	
37	37A-48A 37B-47B	1500	GM-EMD	F-7B	B-B	62,750	251,000	1949,'52	s
50	50	2000	Alco-GE	PA-1	A1A-A1A	55,475	336,100	1941	s
50	50A	2000	Alco-GE	PB-1	A1A-A1A	57,625	345,600	1941	s
51	51,51C	2000	Alco-GE	PA-2	A1A-A1A	53,825	322,460	1946	s,6
51	51A	2000	Alco-GE	PB-2	A1A-A1A	51,525	312,750	1946	s,6
52	52-78	2000	Alco-GE	PA-2	A1A-A1A	53,090	317,900	1946-'48	s,3
52	52A-62A, 70A-73A	2000	Alco-GE	PB-2	A1A-A1A	50,865	308,350	1946-'48	s,4
80	80-87	2000	GM-EMD	E-8A mod.	A1A-A1A	54,130	324,750	1952-'53	s,5
80	80A-84A	2000	GM-EMD	E-8B mod.	A1A-A1A	54,815	328,840	1952-'53	s,5
90	90,90B	2000	FM	ALT 100.3a	A1A-A1A	56,025	327,300	1947	s
90	90A	2000	FM	ALT 100.3a	A1A-A1A	56,575	329,100	1947	s
99	99	1350	GM-EMD	GP-7M	B-B	62,400	249,600	1954	
100	100-138 140-195	1350	GM-EMD	FT A	B-B	58,225	232,900	1941-'45	R,7
	197-199,407,410-413,427,429,430,107C,110C,111C,118C,120C-122C,124C-127C,129C,131C-135C, 137C,140C,142C,144C,146C,149C,150C,157C,159C-161C,163C,164C,168C,170C-172C,174C-177C, 182C,189C,192C-194C,197C,199C,411C,412C,413C								
100	100A-138A 140A-179A	1350	GM-EMD	FT B	B-B	57,550	230,200	1941-'45	R,7
	181A-195A,197A-199A,407A,410A-413A,415A,427A,429A,430A,100B-106B,108B,109B,112B-117B, 119B,123B,128B,130B,136B,138B,141B,143B,145B,147B,148B,151B-156B,158B,162B,165B-167B, 169B,173B,178B-181B,183B-188B,190B,191B,195B,198B,407B,410B,427B,429B,430B								
200	200-280 200C-280C	1500	GM-EMD	F-7A	B-B	62,250	249,000	1948-'51,'53	8,R
200	200A-280A 200B-280B	1500	GM-EMD	F-7B	B-B	62,250	249,000	1948-'51,'53	R,9
281	281-289 281C-289C	1750	GM-EMD	F-9A	B-B	61,875	247,500	1956	
281	281A-289A 281B-289B	1750	GM-EMD	F-9B	B-B	61,875	247,500	1956	
300	300-314	1500	GM-EMD	F-7A	B-B	61,000	244,000	1949,'52,'53	
300	300A-314A 300B-314B	1500	GM-EMD	F-7B	B-B	62,500	250,000	1949,'52,'53	s
325	325-344	1500	GM-EMD	F-7A	B-B	61,000	244,000	1950,'51,'53	
325	325A-344A 325B-340B	1500	GM-EMD	F-7B	B-B	62,500	250,000	1950,'51,'53	s
450	450	360	Dave-Bes	——	B-B	22,125	88,500	1941	
451	451	360	Whitcomb	——	B-B	22,200	88,800	1941	R
460	460-468	380	GE	44 ton	B-B	22,025	88,100	1942-'44	
500	500	1000	FM	ALT 100.6A	B-B	61,775	247,100	1945	

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Don Erb, Santa Fe Railway

Santa Fe diesel repair shop at Argentine, Kansas, placed in operation in 1954.

501	501-502	1000	FM	ALT 100.6A	B-B	60,300	241,200	1948	
503	503-540	1200	FM	H12-44	B-B	61,875	247,500	1950-'53	
	544-564					61,150	244,600	1955-'57	10
541	541-543	1600	FM	H16-44	B-B	61,600	246,400	1956	s
600	600-601	2250	Alco	RSD-7	C-C	91,500	366,000	1954	11,s
						94,750	379,000		
602	602-611	2400	Alco Pr.	RSD-15	C-C	99,500	398,000	1955	
625	625-633	750	BW	DS 4-4-7.5	B-B	49,275	197,100	1949	R
650	650-653	600	GM-EMC	SC	B-B	62,000	248,000	1936-'37	R,12
700	700-751	1750	GM-EMD	GP-9A	B-B	62,250	249,000	1956-'57	13
1500	1500-1537	1000	Alco-GE	S4	B-B	57,975	231,900	1951-'53	
2099	2099	1600	Alco-GE	RS-3	B-B	63,575	254,300	1950	s,R,15
2100	2100-2162	1600	Alco-GE	RSD-5	C-C	90,410	361,650	1951-'53	14
2201	2201-2206	1000	Baldwin	VO	B-B	61,550	246,200	1939-'41	
2207	2207-2259	1000	Baldwin	VO	B-B	61,125	244,500	1942,'45	
2260	2260-2299	1000	BW	DS 4-4-1000	B-B	57,825	231,300	1948-'49	
2300	2300	600	Alco	——	B-B	51,530	206,120	1935	
2301	2301-2302	600	Alco	——	B-B	49,060	196,240	1937	
2303	2303-2304	660	Alco-GE	S1	B-B	49,750	199,000	1944	
2310	2310-2321	1000	Alco-GE	S2	B-B	56,975	227,900	1939	
2322	2322-2391	1000	Alco-GE	S2	B-B	57,600	230,400	1942-'45,'48,'49	
2394	2394-2399	1000	Alco-GE	RS-1	B-B	61,650	246,000	1947,'49,'50	R,s
2400	2400-2402	900	GM-EMC	NW	B-B	64,335	257,340	1937	R
2403	2403-2417	1000	GM-EMD	NW-2	B-B	64,075	256,300	1939,'43	R
2418	2418-2419	1200	GM-EMD	TR-4	B-BxB-B	61,890	247,550	1950,'51	
	2418A-2419A	1200				60,775	243,100		
2418	2420-2438	1200	GM-EMD	SW-9	B-B	61,890	247,550	1953	
2600	2600-2606	2000	BW	DT 6-6-2000	C-C	94,500	278,000	1948-'49	17
2650	2650-2893	1500	GM-EMD	GP-7	B-B	62,250	249,000	1950-'53	18
2650	2788A-2792A	1500	GM-EMD	GP-7B	B-B	61,790	247,150	1953	
3000	3000-3019	1600	FM	H16-44	B-B	62,260	249,050	1951-'52	

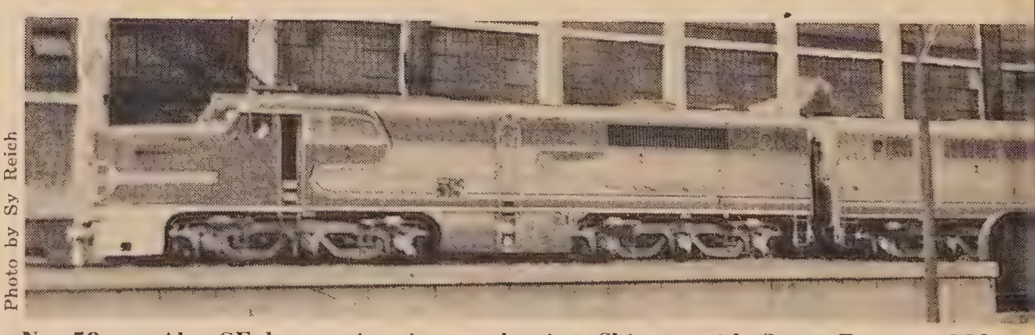
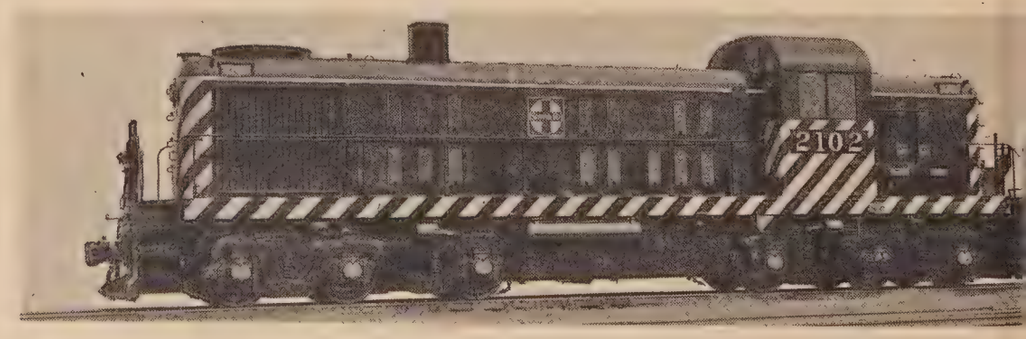


Photo by Sy Reich

No. 58, an Alco-GE locomotive, is seen leaving Chicago with Santa Fe train 123.



This baby with the barber-pole striping is No. 2102, a Santa Fe road switcher.

R—Locos Renumbered

SANTA FE locos have been renumbered on several occasions. These are listed with the original number first, then subsequent numbers separated by commas. The numbers for separate units are separated by semicolons.

101, 100C, 102; 101C, 103; 108C, 174B, 105B; 131A, 106B; 131C, 428, 107; 144C, 419, 107C; 131B, 108B; 107B, 110A; 142C, 418, 110C; 135C, 426, 111C; 118B, 408A, 113B; 118A, 114B; 120C, 417, 118; 114C, 171B, 118A; 141C, 414, 118C; 121B, 119B; 111C, 409, 120C; 119C, 121C; 129B, 426A, 193B, 122A; 122C, 422, 128C, 122C; 123C, 124; 126, 141C, 125C; 125C, 126; 136C, 127C; 135B, 131A; 118C, 408, 131C; 169C, 406, 132; 143C, 405, 132C.

140, 134C; 132, 135C; 139B, 416A, 136B; 110C, 137; 132B, 137A; 138, 402, 137C; 140C, 137C, 138; 140B, 169C, 138A; 140A, 143C, 138B; 107C, 140; 133B, 140A; 109C, 140C; 168C, 415, 142C; 137, 144C; 139A, 145; 139, 146C; 137A, 147B; 149B, 151B; 120C, 152A; 145B, 420A, 152B; 122C, 153A; 150B, 153B; 124C, 154A; 138A, 134C, 154B; 126C, 155A; 138B, 137C, 155B; 128C, 156A; 125C, 154B, 194A, 156B; 130C, 157A; 134C, 400, 157C; 132C, 158A; 133C, 158B; 134C, 159A; 136C, 160A; 138C, 161A; 140C, 162A; 143C, 163B, 189B, 162B; 142C, 163A; 144C, 164A; 146C; 165A; 147C, 165B; 148C, 166A; 149C, 157B, 166B;

150C, 168A; 137C, 401, 168C; 119C, 169A; 118C, 169B; 117C, 170A; 115C, 171A; 113C, 172A; 111C, 173A; 176B, 173B; 109C, 174A; 178, 174C; 107C, 175A; 105C, 176A; 114C, 177; 174C, 178; 117C, 180; 102C, 180B; 116C, 181; 103C, 181A; 104C, 181B; 115C, 182; 101C, 182A; 178C, 182B, 182C; 105C, 183; 105B, 183A; 106C, 175B, 183B; 173C, 184; 177B, 184A; 110C, 173B, 184B; 179C, 185; 113B, 185A; 114B, 185B; 165C, 186; 137C, 160B, 186A; 139C, 161B, 186B; 166C, 187; 106B, 187A; 108B, 187B; 167C, 188; 145C, 164B, 188A; 141C, 162B, 188B; 158C, 159B, 189;

135C, 189A; 162C, 189C; 124, 123C, 190; 124B, 190A; 126B, 190B; 130C, 191; 125B, 191A; 127B, 191B; 151C, 192; 151B, 192A; 112C, 421, 192C; 153C, 193; 123C, 153B, 193A; 145C, 420, 193C; 154C, 194; 116C, 170B, 194A; 148C, 194C; 155C, 195; 127C, 155B, 195A; 129C, 156B, 196A, 195B; 157C, 197; 131C, 157B, 197A; 156C, 196, 197C; 136C, 198; 136B, 198A; 112C, 172B, 198B; 128C, 199; 134B, 199A; 132C, 199C; 205A, 241B; 205, 241C; 306, 325; 306A, 325A; 306B, 325B; 307, 326B; 307A, 326A; 307B, 326B; 315, 334; 315A, 334A; 315B, 334B;

308, 327; 308A, 327A; 308B, 327B; 309, 328; 309A, 328A; 309B, 328B; 310, 329; 310A, 329A; 310B, 329B; 311, 330; 311A, 330A; 311B, 330B; 312, 331; 312A, 331A; 312B, 331B; 313, 332; 313A, 332A; 313B, 332B; 314, 333; 314A, 333A; 341B; 333B; 316, 335; 316A, 335A; 316B, 335B; 113C, 407; 114B, 419A, 422A, 407A; 142B, 418A, 422B, 407B; 119C, 410; 119B, 410A; 137B, 141C, 410B; 146C, 411; 146B, 411A; 139C, 416, 411C; 147C, 412; 147B, 412A; 138C, 403, 412C; 152C, 413; 121C, 152B, 413A; 118, 413C;

151C, 168B, 415A; 106C, 118C, 427; 120B, 417A, 427A; 110B, 407A, 404A, 427B; 177, 114C, 407C, 429; 122A, 429A; 122B, 188A, 429B; 108C, 408C, 430; 110A, 430A; 111B, 409A, 430B; 251B, 281A, 251B; 251C, 281, 251C; 252B, 282A, 252B; 252C, 282, 252C; 253B, 283A, 253B; 253C, 283, 253C; 254B, 284A, 254B; 254C, 284, 254C; 255B, 285A, 255B; 255C, 285, 255C; 256B, 286A, 256B; 256C, 286, 256C; 265C, 287, 265C; 266B, 287A, 266B; 2110, 2099;

2800-2818, 3000-3018; 2899, 3019; 1A, 1, 83A; 1B, 10, 1A, 2611, 84A; 2A, 2, 80; 2B, 2A, 4, 81; 3, 82; 3A, 82A; 4, 80A; 4A, 81A; 5, 83; 6, 84; 7, 85; 8, 86; 9, 87; 51B, 63, 51C; 52B-62B, 64-78; 300, 451; 525-533, 625-633; 2385-2388, 2396-2399; 2350-2367, 2400-2417.

BOOKS of the RAILS

100 YEARS OF RAILROAD CARS, compiled and edited by Walter A. Lucas, illustrated, 196 large pages, Simmons-Boardman Books, 30 Church St., New York City, $8.50.

Walter A. Lucas

A rich array of pictures and plans of rolling stock, past and present, this book is a delight to those who take railroads seriously, particularly model builders. With a fair amount of skill and patience you could use its authentic data to create scale models. The material is culled from eight editions of *Car Builder's Cyclopedia,* some of them long out of print and rare, as well as *Railway Age* and the author's personal collection.

For years Lucas was managing editor of the *Locomotive* and *Car Builder's* cyclopedias. He has written many magazine articles and several books, including the famous *Pocket Guide to American Locomotives* (steam, diesel, electric), 340 pages, 175 illustrations, which Simmons-Boardman sells at $4.95.

A PICTURE HISTORY OF U.S. TRANSPORTATION, by Roderick Craib, illustrated, 124 large pages, indexed, Simmons-Broadman Books, 30 Church St., New York City, $6.

Nearly all of its 228 illustrations are railroad photographs—good ones, too. Many we had never seen before. Craib is an editor of dieselized *Railway Age* but his bok glorifies steam railroading. It's a book you'll want for your library.

LAST TRAIN FROM ATLANTA, by A. A. Hoehling, illustrated, 558 pages, Thomas Yoseloff, 11 E. 36th St., New York City, $6.95.

This story is not fiction. It is the well-documented epic true story of what happened to Atlanta, Ga., "the only American city ever to taste the hell of total war," during three and a half months of 1864. It consists mainly of excerpts from letters written by men and women in the doomed city—soldiers, nurses, doctors, housewives, merchants —also quotations from Northern and Southern newspapers, communiques, and diaries.

Inasmuch as the Civil War was the first war in which railroads played a major role, the author devotes much space to them. Interest centers around the old wooden trainshed, the one General Sherman burned to the ground but which was recreated in 1939 for the film *Gone With the Wind.* "Day and night trains were chugging in with more wounded, more sick—boxcars, flatcars, coaches and, infrequently, specially fitted hospital cars. As the long, misery-laden trains rolled into the city, the bells tolled and tolled, as if in requiem."

Hoehling quotes frank, vivid details, including the actual words of nurses who met those casualty trains. The last

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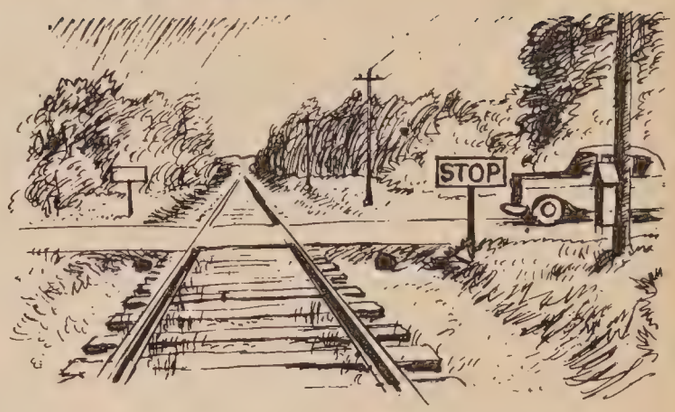
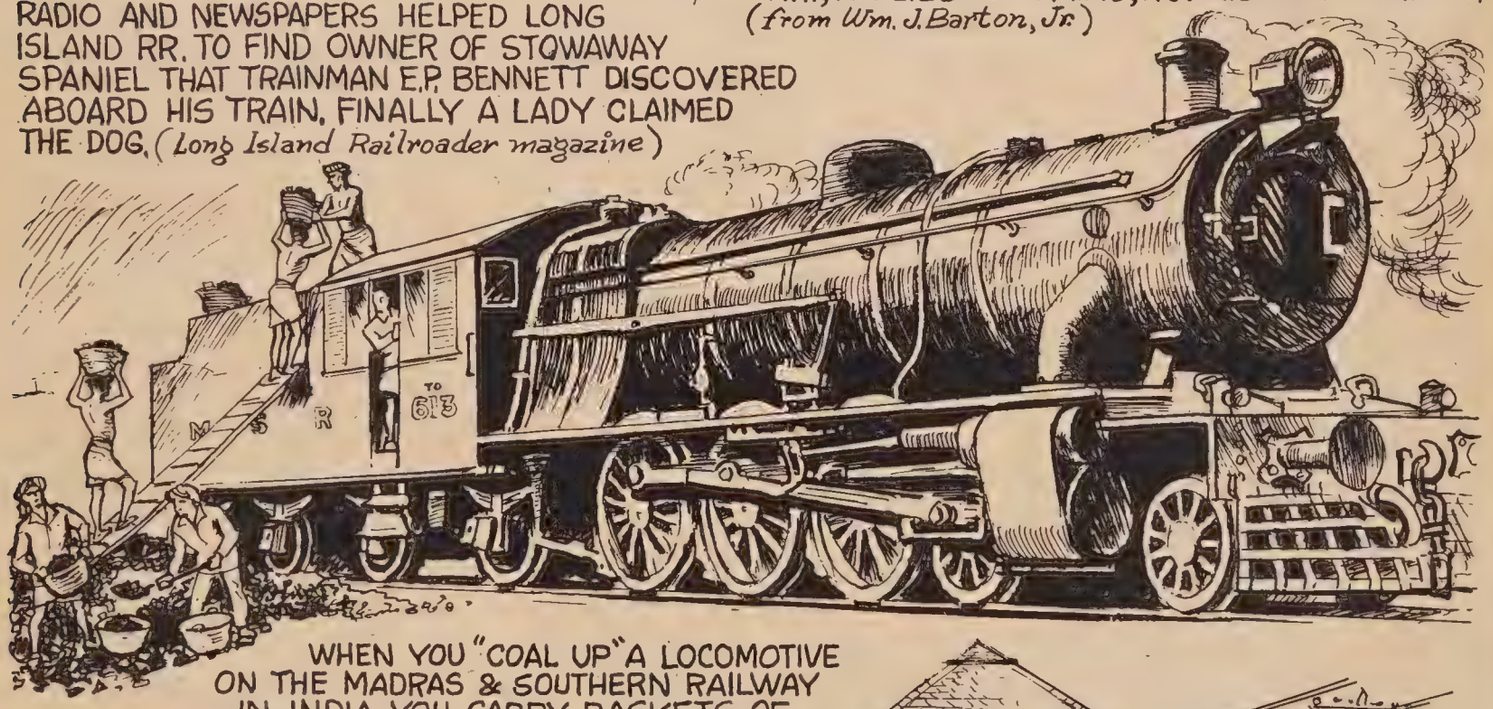
Along the Iron Pike

by Joe Easley

RADIO AND NEWSPAPERS HELPED LONG ISLAND RR. TO FIND OWNER OF STOWAWAY SPANIEL THAT TRAINMAN E.P. BENNETT DISCOVERED ABOARD HIS TRAIN. FINALLY A LADY CLAIMED THE DOG. (*Long Island Railroader magazine*)

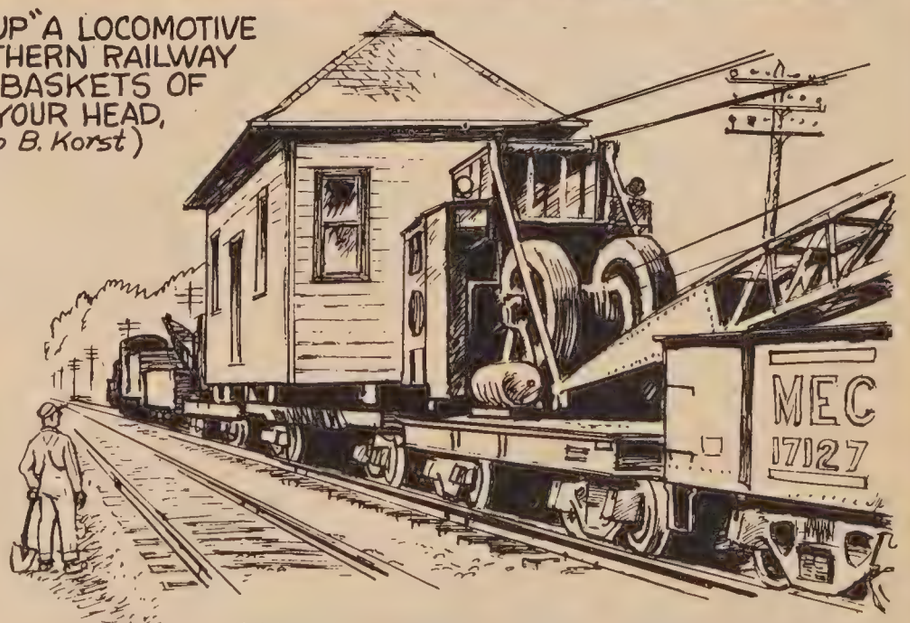


"STOP" SIGN AT CROSSING OF ROUTE 3 ON GRASSE RIVER RR. NEAR CRANEBERRY LAKE, N.Y., APPLIES TO TRAINS, NOT HIGHWAY TRAFFIC. (*from Wm. J. Barton, Jr.*)



WHEN YOU "COAL UP" A LOCOMOTIVE ON THE MADRAS & SOUTHERN RAILWAY IN INDIA YOU CARRY BASKETS OF COAL ON YOUR HEAD. (*from Philip B. Korst*)

NOVEL MENU FOR CHILDREN ON PENNSY DINING-CAR FOLDS UP INTO REALISTIC TOY RAILROAD CAR WHICH CAN BE TAKEN HOME AS SOUVENIR.



MAINE CENTRAL STATION RIDES A TRAIN FROM FAIRFIELD, MAINE, WHERE IT IS NO LONGER NEEDED, TO WATERVILLE YARDS FOR USE AS FOREMAN'S OFFICE. (*Maine Central RR. Magazine*)

train to leave Atlanta just before Union troops marched in was a string of decrepit old wooden boxcars, their roofs piled high with ragged refugees and huge bags of household goods, pulled by a balloon-stracked eight-wheeler. Among the rare illustrations in the book is a photograph of that train.

THE GILPIN TRAM, by Frank Hollenback, illustrated, 65 pages, Sage Books, 2679 S. York St., Denver, Colo.; $2 paper-bound, $5 for autographed de luxe edition.

A steam-powered two-foot-gage line in Colorado. Told with interesting details plus photos, maps, and scale drawings. No narrow-gage fan should miss it.

EARLY HISTORY OF THE LONG ISLAND RAILROAD, 1834-1900, by Mildred H. Smith, 63 pages, Ira J. Friedman, 215 Main St., Port Washington, N. Y., $3.

Interest bred by the LIRR's 125th anniversary has created a real demand for this new book. Long Islanders will welcome the light it sheds on bygone years. LIRR was the seventh U.S. road to use steam engines and is now the world's largest commuter line. We'd like Mrs. Smith's work better if it gave generous space to motive power, if it included more illustrations than a map and a picture of the locomotive *Ariel*, and if it used the correct name, *Long Island Rail Road*.

JIM FISK: The Career of an Improbable Rascal, by W. A. Swanberg, illustrated, 310 pages, Chas. Scribner's Sons. 597 5th Ave., New York 17, N. Y., $4.50.

Readers who enjoyed Lucius Beebe's piece on "The Blackmailing Carbuilders" in our June '59 issued would go for the Fisk biography in a big way. Swanberg breathes new life into the old story of "Jubilee Jim" stealing millions from the Erie Railroad to finance his vanity and lust and how he was killed in a sordid love affair. The book ends with this comment on his burial place at Brattleboro, Vt.:

"Never was there a more appropriate monument. Fisk had trouble with naked women all his life, so they put four of 'em over his grave."

The opera house that Jim built for his *inamoratas* still stands in New York City. but is now used as a motion picture theater. On the floor above were the Erie's general offices. Today the road's headquarters are in Cleveland, but you can still see the original big teakwood door, ornately carved, with the initials ER (Erie Railroad), on 23rd Street at Eighth Avenue in New York.

THE ILLUSTRATED BOOK OF AMERICAN FOLKLORE, by Ben Botkin and Carl Withers, drawings by Irv Doktor, 101 large pages, Grosset & Dunlap, 1107 Broadway, New York City, $3.95.

Format and colored illustrations make this the most beautiful teen-age folklore bok we've ever seen. Included are John Henry and Casey Jones.

Alan Gould, 8540 S.W. 58th St., Miami, Fla.

Photo used on *Tweetsie* book jacket.

This summer the Railroadians of America will publish a book on Climax Locomotives, about 90 pages, 8½ x 11, with 110 photos, to sell for about $2.50. Editor of publications is Thomas T. Taber III, P.O. Box 131, Wellsville, N.Y.

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NARROW-GAGE TWEETSIE

OF COURSE, you'll want to ride and photograph Tweetsie, the steam-powered 3-foot-gage railroad that roams the Blue Ridge Mts. A fine, illustrated, 65-page book entitled *Tweetsie; The Blue Ridge Stemwinder* tells all about it. The book is authored by Julian Scheer and Elizabeth McD. Black, is published by Heritage Printers, 5308½ Monroe Road, Charlotte 5, N. C., and sells at $2.95 a copy. NBC's Monitor made a recording with a reading from this book and sounds of the train itself for transmission by its 1,000 radio stations.

Tweetsie Railroad used to be the East Tennessee & Western North Carolina. Engine No. 12 is a 4-6-0 with 16x22-inch cylinders; 19,100 pounds of tractive effort, and 45-inch drivers. Total weight of engine and tender in working order, 158,800 pounds. She's a paradise for steam-starved photo addicts.

This pike runs all summer long and into the fall. Lucius Beebe calls her a "rare, dainty, and proud narrow-gauge." Says he: "Its locomotives are Swiss-watch anachronisms with red-and-gold-capped stacks, red-paneled cab window frames, and red assemblies that might have come from a jeweler's display window."

She operates between Johnson City, Tenn., and Boone, N. C., by way of Elk Park. If you don't ride her this summer, you'll wish you had—especially after you've read the book.

MAIL CAR

(Continued from page 10)

has shown a "lack of interest" in passenger service that is inimical to its own best interests and more importantly to those of the people of California." (Similar charges have been made against other railroads.)

At the same time, the Commission ordered the SP to continue operation of four of the six passenger trains in California it wanted to abandon. ●

THE DEPOT at the highest point on a standard-gage road east of the Rockies was closed last March 13, Friday the 13th being an unlucky day for the Southern Railway's Haywood-Jackson line, reports Oliver Carruth, Box 152, Waynesville, N. C.

The lofty old station at Balsam, N. C., once the most flourishing point on the Murphy branch, is a victim of changing business trends. When Station Agent R. L. Pearson turned the key in the door for the last time, he marked the end of an era. Oldtimers recall when one of the line's first steam engines, Class 100, could not haul more than two boxcars at a time up the steep mountain grade. ●

MEET Lord Garnock, director of a British textile concern and a subscriber to *Railroad Magazine*. Upon leaving Cambridge University, he became a traffic apprentice on the British Railways and from then on until 1950 was actively employed in railroading.

"After completing the apprenticeship," he writes, "I went on an exchange scheme for a year in the United States and Canada and was fortunate enough to spend a varying length of time, from days to weeks, with the operating departments of a great many railroads. Those twelve months represented the most fascinating experience I have ever had, and in many ways were more of an education than anything I had learned at school or college.

"My happiest memories are with your railroad men and therefore I depend on your magazine and others to keep me in touch with what is happening. In front of our house we have a Pennsylvania locomotive bell and works plate to help keep these memories alive.

"I enjoyed Freeman Hubbard's *Railroad Avenue*. It was one of the first books I read before going up to the Canadian National's Northern Ontario District." ●

BORN as a result of the U.S. Supreme Court's most quoted decision and nurtured by the most famous gun duel in American history, the Weehawken, N. J., ferries of the New York Central Railroad carried men, circus animals, and machines across the Hudson River for more than 130 years. This service ended at 12.01 a.m. last March 25th. It had become unprofitable.

Chief Justice John Marshall's epic Gibbons vs. Ogden decision of March 2, 1824, freed the Hudson for interstate commerce and, ironically, laid the legal groundwork for the Transportation Act of 1958, under which the Central's ferries were discontinued. Before this decision, ferry service between mid-Manhattan and the North Hudson area of New Jersey was limited to for-hire sailing craft. These ships maintained no schedules and made the mile-long crossing only when the pay, weather and ferryman's inclination were right.

It was on a melancholy July morning in 1804 that Alexander Hamilton, former Secretary of the Treasury and a resident of New York City, made his last ferry trip from Manhattan to New Jersey. On the very spot where the West Shore ferryhouse now stands, he was mortally wounded by Aaron Burr of New Jersey. A monument marking the site was moved to the Weehawken cliffs in 1882, to make way for construction of the ferry building. ●

WHO can send details on the abandoned Sterling Mt. Railroad to Thomas E. McGowan, Delaware, Lackawanna & Western Railroad YMCA, Hoboken, N. J. He came across its seven-mile track, with rails, ties, and switches intact, in a forest between Sterlington and Eagle Valley, Sterling Furnace and Lakeville, N. Y. ●

ACCORDING to the *Congressional Record*, the United States Government has poured more than half a billion "foreign aid" dollars into the railroad systems of Europe, Asia, and Africa since World War II. During all that time it has done relatively little for our own railroads. A 20-page booklet just issued by the Association of American Railroads cites the following problems as "urgently in need of action by Congress":

(1) Railroads still are required to help pay for highways, airways, airfields, and waterways, but do not have the same opportunity as other taxpayers to use these facilities for business purposes.

(2) Fully self-supporting, tax-paying railroads still are unfairly handicapped by having to meet tax-supported competition.

(3) A 10 percent travel tax was imposed in World War II to discourage use of public carriers, today, 14 years after the war, it continues to do just that.

(4) Railroads must still bear the full cost of unemployment insurance benefits under programs covering other workers.

(5) Railroads still are deprived of equal opportunity to share in hauling agricultural commodities which, when transported by motor carrier, are exempt from ICC regulations.

(6) Vitally needed modernization of railroads continues to be frustrated by unsound policies governing depreciation of plant and equipment. ●

PANAMA RAILROAD is fully dieselized, laments Lester C. Harlow, 5901 Paul St., Alexandria, Va., now visiting the Canal Zone and South America. He says that a 2-6-0, built by Cooke in 1903 and in service over 50 years, is on permanent display at Balboa station, Pacific end of canal. The railroad's status is a bit shaky. There is some agitation for its abandonment on the ground that a highway now crosses the Isthmus plus the fact that many Government installations have shut down in recent years. Passenger trains are cut; freight has fallen off. But you can still ride the rails from the Atlantic to the Pacific in 75 minutes. ●

BRIEFLY SPEAKING. The New York Central chose St. Patrick's Day to announce it had just painted 12 boxcars a bright new color, jade green, and decorated them with a new emblem, the idea being to get shippers' reaction and test the weathering quality of the paint. Another dozen boxcars are now being treated the same way.

In another step away from the horse-and-buggy age, the Long Island Rail Road is asking the New York State Public Service Commission for permission to eliminate station and train service at Sekauket, on its Port Jefferson branch. Although 24 trains (12 in each direction) serve Sekauket every weekday, by actual count only 19 people a day use the station, a two-story frame structure built in 1874.

The vista-domed *California Zephyr* celebrated its tenth anniversary by giving a miniature birthday cake to each passenger on its 2500-mile run between Chicago and Oakland via the Burlington, the Rio Grande, and the Western Pacific. This famous train has been used in *Cinerama Holiday, Sudden Fear, Western Pacific Agent,* and other Hollywood films.

Tracy, Calif., had a temperature of 96, but Bobby Bates, a 41-year-old transient, nearly froze to death. Bates was asleep in an empty reefer on a Southern Pacific siding when the Tracy Ice & Development Co. dumped five tons of chopped ice around him through a chute. It took men with shovels an hour to dig him out.

Heddrea Todd of East St. Louis, one of the few women working as car-oilers on the Illinois Central, is the wife of Frank L. Todd, an IC bull. Her hobby is oil painting.

Did you know that the Reading Railroad and affiliated companies used to be one of the world's largest corporations? In 1871, after formation of the Philadelphia & Reading Coal & Iron Co. and development of its own shipyards, the Reading had a gross valuation of $170 million.

There's a village known as Railroad that stands beside the Pennsy tracks but has never had railroad service. It was named by the citizens of Shrewsbury, Pa., 1¼ miles away. Years ago the people of Shrewsbury would say, "I'm going over to the railroad." Later when a few buildings were erected near the tracks they dubbed the place *Railroad,* and it still carries that name.

Long-distance trains, like ships, should be designed for pleasure as well as service, according to Philip Stern, a New York director of interior design. "With the same amount of space but with convertible cars," he says, "a train can have a games room, a gym, a theater, or a nursery. It isn't a lack of travelers that's hurting the railroads; it's a lack of imagination."

CHICAGO TUNNEL CO. is in bad shape financially and wants to sell out but has had no offers to buy, reports Alexander L. H. Darragh, 242 Greenleaf Ave., Wilmette, Ill. Efforts to reorganize the 27-mile underground railroad serving the Loop area have failed. The company asks court permission to abandon the whole line. This railroad, built shortly after the turn of the century, used to be 47 miles long. It carried refuse from buildings as well as packages, freight, and coal for delivery. At its peak it averaged nearly 700 tons of freight loadings daily.

DEADLIEST avalanche occurred in the dark early morning of March 1, 1910, when many tons of snow sliding down a mountain at Wellington, Wash., swept two westbound Great Northern trains, Nos. 25 and 27, off the rails into a gully 150 feet below. One was a fast mail, the other a passenger train. Both had been waiting on sidings near the original Cascade Tunnel while huge rotary plows cleared the track. The slide occurred because a forest fire had destroyed timber which would have anchored the snow.

Freeman Hubbard told the story of this disaster in the March '59 issue of *Argosy,* a 35c magazine put out by the publishers of *Railroad.* The feature is called "Avalanche" and is illustrated. It brought back memories to a retired railroader, A. W. Meyers, 4335 N.E. Laurelhurst Pl., Portland, Ore., who writes:

"Back in 1910, Bob White (not the Grand Trunk Western section boss) and I were braking on the eastbound GN passenger train that had a meet scheduled with westbound 25 and 27 at Wellington. By a lucky accident, we failed to meet those trains and thus escaped their terrible fate.

"This is what happened: We ran into the rotary outfit that was plowing the way for us. They were taking water at Scenic when we hit them. We damaged our own train so badly that we could not proceed, but the rotary went on its way undamaged. The only rotary west of us was in the repair shop at Everett, so we were stalled at Scenic for three days.

"Had company officials heeded the repeated warnings of Jim Corcoran, the tragedy would never have happened. Jim was our conductor. He had often urged the brass collars to build a snowshed at Wellington, saying that if they didn't they'd see the worst slide in history on that spot. He said, moreover, just before we set out on the run in question, that with so much snow no train could possibly get over the mountain that night. How right Jim was!"

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EARN GOOD MONEY mailing circulars. Write. Leeway, Mountain View 2, Oklahoma.

$200-$300 MONTHLY. Mailing literature. Peavie, POB 38, Tillicum 99, Washington.

$25 FOR JOKES. Free Details. Guide, Box 2077, Philadelphia 3, Pa.

FOREIGN & U.S.A. JOB LISTINGS

JOBS—HIGH PAY; USA, So. America. The Islands. All trades. Many companies pay fare. Write Dept. 71D, National Employment Information, 1020 Broad, Newark, New Jersey.

JOBS ON SHIPS and Yachts Traveling Foreign Countries. Davenport's GPO 1354, New York 1.

EARN HIGH PAY, Aboard ships. Travel foreign countries. Write Dept. 76C, Universal, 1020 Broad, Newark, N.J.

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POEMS WANTED FOR New Songs and Recording. Immediate Consideration. Send Poems. Songcrafters. Box 6145 Acklen Station, Nashville, Tennessee.

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That *Argosy* feature rolled back the years for J. E. Ferguson, Box 1159, Wenatchee, Wash. "At the time of the big avalanche," he writes, "I was sheriff of Chelan County and went to the scene. The first train from Spokane with rescue workers was tied up at Leavenworth, Kan., by a slide in Tumwater Canyon. I recruited help to dig out the slide so that the rotary plow could be brought in and turn around to head back.

"We rode to Berne. Then, with six other men, I walked the rest of the way to Cascade Tunnel. When we arrived we saw bodies being carried by sled to Scenic. I dug out several bodies myself and then left for the tunnel's east side to quell some trouble. For two weeks after that I had nightmare and slept very little."

Says Thodore Drake, 2615 S. Phinney Bay Drive, Bremerton, Wash.: "That *Argosy* piece was the best account of the Wellington slide I've ever read. I know the area. Explorer Scouts are going to place a stainless-steel marker at the disaster site." •

The little town of Wellington has long since been abandoned. Likewise the original tunnel. The "Big G" relocated its tracks and built an immense new tunnel further down the slope, making a safe, more efficient route between Spokane and Seattle. The present Cascade Tunnel is the world's longest railroad bore, except for three Alpine tunnels in Europe.

According to Walt Thayer, Box 1634, Wenatchee, Wash., who was a Great Northern gandy dancer for 18 years, the old tunnel is not closed. Anyone may visit it merely by climbing the mountain. "Mr. Hubbard did a great job with the *Argosy* story," he adds. •

DID you know that American railroads' loss and damage claims on canteloupes alone run to about a million dollars per year? It's true. To cut this loss, the growers are changing their methods.

Giant loader rigs are superseding the pickers' sack at harvest time and a new type of shipping crate has been developed by Package Research Laboratory at Rockaway, N. J. This crate, holding two layers of canteloupes and closed easily with a wire catch, has begun to replace the long-established, heavy, three-layer, nailed crates. Railroad figures show that the new type reduces cooperage and bad-order arrivals by up to 75 percent, on the average, as compared with the bruising of canteloupes shipped in three-layer nailed crates. •

Best way to load a reefer with fresh fruit is to fill it about two-thirds, leaving space at the top of the car for cool air to circulate, and install an electric fan.

BACK in the days when the railroads were handing out free passes to politicians, editors, publishers, etc., a conductor collecting fares on a Louisville & Nashville train challenged what appeared to be a phony pass made out to Frank Smith.

"I'm Mr. Smith," the young passenger said glibly. "I work for Col. Henry Watterson" (a distinguished journalist of that period).

"That's fine," exulted the ORC. "Colonel Watterson happens to be on board this train in the car ahead. We'll see if he can identify you."

The pass-holder's jaw fell, but to his surprise the Colonel nodded. "Yes, that's Frank Smith. Sit down here, my boy."

After the chagrinned conductor had gone, Smith tried to say thank-you, but his companion silenced him.

"Think nothing of it, son. I'm not Colonel Watterson. I'm traveling on a borrowed pass, too." •

FIVE ways to rob an editor of the time and the freedom from eyestrain that he needs for putting out a good magazine: (1) Write long rambling letters to him. (2) Write often. (3) Use a badly-worn typewriter ribbon or a pale gray lead pencil. (4) Write on both sides of the paper. (5) Enclose a lot of miscellaneous material with every letter. •

C&O CHAIRMAN Cyrus Eaton made a blistering speech in Cleveland the other day in which he cnarged that "the overwhelming majority" of U.S. politicians, generals, and journalists" were "relentlessly driving us toward war." Also: "This trinity fans the flames of hatred against the Communist world while beating the drums for ever bigger expenditures for armaments."

Getting ready for World War III, he asserts, has become the chief preoccupation of our Government, not just our generals. "We are constantly told that

Long Island Rail Road

Long Island RR. lends umbrellas to its passengers free on rainy days, using 65 bumbershoots from its Lost and Found Department. The delighted borrowers bring them back to the stations later.

this way lies the only solution to our rivalries with the Soviets." He holds that the U.S. is begging for trouble in re-arming Germany. "German military leaders have told me of their alarm over the reawakening of the old military spirit that brought such tragedy in the past."

The chairman of the board, Chesapeake & Ohio Railway, says there is no defense, civil or military, against modern nuclear weapons, "Civil defense must be labeled, however regretfully, as a farce."

LAST of the oldtime train bandits, Bill La Trasse, 77, died the other day in a Denver hospital. He had held up a Missouri Pacific train in Kansas on Christmas night, 1910, pushing a frightened porter ahead of him through the coaches while he robbed the passengers of about $2,000. For that and other crimes he spent half his life in prison, escaping twice and being recaptured.

During his first term his mother kept a light burning in a window of her Kansas City home for the time "my Willie" would come back. She scrubbed miles of floors and saved $1,800 to give him, but the bank failed in the Depression and he never got it. At least, the old desperado died a free man, having been released from Kansas State Pen last December 30th.

NEW RECORDINGS. *Men of Steam* is a significant new type of record designed for railroaders and railfans and especially for posterity. We hear "engine talk," the voices of four veteran hoggers (two on the Pennsy, one Es Pe, one Illinois Central) telling us about steam locomotives they have handled and interesting runs they have made. This 12-inch, LP, hi-fi record consists mostly of comments and reminiscences—railroad men talking in their own language—with some engine-train sounds provided by Stan Kistler. It's a grand record. We recommend it highly. Price, $5. Produced by Stan Repp, Box 654, Manhattan Beach, Calif.

Steam in Twilight is another 12-inch LP, hi-fi disc you won't want to miss, the mighty chant of Northern Pacific steam power at Tacoma, Centralia, Seattle, Auburn, Stampede Pass, and other places on the Tacoma Division, recorded in 1956 by Herb Chaudiere. This platter catches the magic of a vanished age. Produced by Puget Sound Railway Historical Association, 3008 Harvard Ave., N. Seattle, Wash. The price, $4.95, includes an illustrated booklet, *Steam Locomotives on the Northern Pacific Railway*, historical and mechanical details, by Leslie F. Blanchard.

IT ISN'T OFTEN we devote space to the lead feature in a rival magazine. This is the first and only time we've done it. "Who Shot the Passenger Train?" in the April '59 *Trains* (Dave Morgan, editor) is the clearest and most entertaining analysis of the railroad passenger business we have ever seen. But while you're reading it, you had better hold on to your seat, for it shatters some pet illusions. Dave writes:

It would be simpler if the train were just a means of moving people. But the train is also photogenic and nostalgic and fun, a source of employment and taxes, the pride of every Chamber of Commerce, and something on which you hand mail and express cars at one end and a business car at the other. And because trains stir up so much emotion, they are susceptible to the magnificent myth, if not the big lie.

That springboard launches into two myths, namely, that "Passenger trains don't really lose so much money" and "They're doing fine in the West, aren't they?" From there on, you get a plain view of the railroad passenger business—past, present, and future. You probably won't like the entire article but you'll learn something from it.

RAILROADS OF THE HOUR, by S. Kip Farrington, with an introduction by Richard M. Nixon, illustrated, 333 pages, indexed, Coward-McCann, Inc., 210 Madison Ave., New York City, $8.50.

Farrington ably describes modern trends in the dieselized, push-button railroad industry, with plenty of pictures, but we can't understand why, unless as a political gesture, he had the introduction written by Vice President Nixon. Since when has Mr. Nixon been an authority on railroading?

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Twin *Electroliners* began to run Feb. '41 between Chicago and Milwaukee, heading fleet of 38 North Shore Line daily trains.

Niles-built cars such as 306 are extremely rare, but the CA&E still uses a few.

These two photos by Sy Reich, 92 St. Marks Place, New York City

No. 801 of the Chicago, South Shore & South Bend, originally built for Russia.

Miscellaneous Notes

ROSTER compiled from data supplied by Vice President, CA&E; Public Relations Manager, CNS&M, and Master Mechanic, CSS&SB. It is accurate as of Jan. 30, 1959. Abbreviations used: RRR—railroad roof; AR—arch roof; S—seats; Ht—height; Mtr.—motor; Trl.—trailer; Comp.—composite (steel and wooden); Coa.—coach; Comb.—combine; Steph.—Stephenson; Cincinn.—Cincinnati Car Co.; St. L.—St. Louis Car Co.; WH—Westinghouse; Artic.—articulated.

CA&E: MU and express cars and locos are painted red and gray with black underbody and roof, yellow numbers.

CNS&M cars, green with red trim, a red and yellow insignia, yellow lettering, black roof and underbody Electroliners, light blue and red with cream lettering, black underbody. Express cars and locomotives, traction orange with black lettering, roof and underbody, cream insignia. Silverside cars are painted to resemble stainless-steel siding.

All CSS&SB equipment is painted traction orange with maroon trim and stripes, contrasting lettering and insignia and black numbers, and underbody, and gray roofs.

(1) 451-455 have 55 seats but no lavatory.
(2) Ex Washington, Baltimore & Annapolis 35, 36, 38, 39.
(3) Ex WB&A 81-83.
(4) Ex Cedar Rapids & Iowa City 72-73, ex Union Electric, ex Oklahoma Ry.
(6) 22 are M, and 22 are R.
(7) 7 are S, and 7 are R.
(8) 22 are S, and one is R.
(9) Two are R.
(10) Electric and storage battery.
(11) Ex Arkansas, Valley Railroad.
(12) Ex Oregon Electric Ry., 50.
(13) Ex Oregon Electric Ry., 51.
(14) 40 rebuilt from 213.
(15) 111 rebuilt from 29.
(16) Ex Buffalo Creak Railway.
(17) Ex NYC 303, 308, 314, 334, 335, 340-343, 318, not consecutive, not all rebuilt yet.
(S) Silverliners (rebuilt) and painted with new color, exterior with silver and gray striping.)
(M) Modernized.
(R) Rehabilitated.
(AC) Air-conditioned.

Next Issue: OCTOBER (Out Aug. 3)

Detailed list of retired steam locomotives on display in parks, museums, etc., of U. S. and Canada.

"Wild Hoggers and No Brakes," personal experiences and recollections by Engineer "Frog" Smith.

Other lively features, a Bedwell fiction story, roster of Illinois shortlines, departments, many good photos, and, of course, a beautiful full-color cover.

CHICAGO INTERURBANS

Roster Compiled by Sy Reich

CHICAGO, AURORA & ELGIN RAILWAY

Multiple-Unit Cars

Road Nos.	Type	Builder	Date	Weight	Motors	HP	S	Length	Width	Ht	Notes
20	RRR Mtr. Comp. Coa.	Niles	1902	85,900	4 GE 66	500	46	47'-4"	8'-6"	13'	
36	RRR Mtr. Comp. Coa.	Steph.	1904	71,100	2 GE 66	250	46	47'-4"	8'-6"	13'	
205	RRR Mtr. Comp. Coa.	Niles	1905	83,900	2 GE 66	250	52	51'-11"	8'-8"	13'	
300,307	RRR Mtr. Comp. Coa.	Niles	1906	93,900	4 GE 66	500	52	53'-1"	8'-8"	13'	
301-304, 306,308	RRR Mtr. Comp. Coa.	Niles	1906	75,000	2 GE 66	250	52	53'-1"	8'-8"	13'	
309-310	RRR Mtr. Comp. Coa.	Hicks	1907	93,900	4 GE 66	500	52	53'-1"	8'-8"	13'	
311	RRR Mtr. Comp. Coa.	Kuhlman	1909	75,000	2 GE 66	250	52	53'-11"	8'-8"	13'-6"	
313-315	RRR Mtr. Comp. Coa.	Kuhlman	1909	100,000	4 GE 66	500	52	53'-11"	8'-8"	13'-6"	
316-318	RRR Mtr. Comp. Coa.	Jewett	1909	100,000	4 GE 66	500	52	54'-0"	8'-8"	13'-6"	
319-321	RRR Mtr. Comp. Coa.	Jewett	1909	100,000	4 GE 254	560	52	54'-0"	8'-8"	13'-6"	
400-419	RRR Mtr. Steel Coa.	Pullman	1923	103,000	4 GE 254	560	56	56'-10"	8'-8"	14'-4"	
420-434	RRR Mtr. Steel Coa.	Cincinn.	1927	111,100	4 GE 254	560	54	55'-3¼"	8'-9"	13'-6"	
451-460	AR Mtr. Steel Coa.	St. L.	1946	86,600	4 GE 739	400	54	55'-4½"	9'-0"	13'	1
600-604	AR Trl. Steel Coa.	Cincinn.	1913	80,000	—	—	54	54'-0"	8'-8"	13'	2
700-702	AR Trl. Steel Comb.	Cincinn.	1913	78,000	—	—	50	54'-0"	8'-8"	13'	3

Freight and Work Equipment

Road Nos.	Description	Builder	Date	TE	Weight	Motors	HP	Notes
7	Composite Tool Car (ex Express)	Cincinn.	1911	17,200	79,000	4 GE 66	500	
11	Composite Line Car (ex Express)	Cincinn.	1911	17,200	79,000	4 GE 66	500	
2001-2002	Steeple Cab B-B Freight Motors	GE	1921-'2	25,000	100,000	4 GE 247	600	
3003-3004	Steeple Cab B-B Freight Motors	WH	1926	26,950	107,800	4 WH 526D5	600	
4005-4006	Steeple Cab B-B Freight Motors	Okla Ry	1929	43,000	144,500	4 WH 582	700	4

CHICAGO NORTH SHORE & MILWAUKEE

Multiple-Unit Cars

Road Nos.	Description	Builder	Date	Weight	Motors	HP	Seats	Notes
150-164	AR Mtr. Steel Coach	Brill	1915	90,000	4 WH 557	560	56-58	
165-169	AR Mtr. Steel Coach	Jewett	1917	90,000	4 WH 557	560	54-58	
170-184	AR Mtr. Steel Coach	Cincinn.	1920	100,200	4 WH 557	560	54,56	
185,186, 191,193, 194,197	AR Trl. Steel Coach	Cincinn.	1920	78,000	—	—	51	
250-256	AR Mtr. Steel Combine	Jewett	1917	91,000	4 WH 557	560	28	
409	AR Mtr. Steel Coach	Cincinn.	1923	103,000	4 WH 557	560	54	S
410-413	AR Mtr. Steel Coach	Cincinn.	1923	98,000	2 WH 557	280	58	R
415	AR Trl. Steel Dining	Cincinn.	1926	98,000	—	—	23	M,S
420	AR Mtr. Steel Coach	Pullman	1928	98,000	2 WH 557	280	58	R
700-733	AR Mtr. Steel Coach	Cincinn.	1923-'6	102,300	4 WH 557	560	56	6
734-736	AR Mtr. Steel Coach	Jewett	1917	102,300	4 WH 557	560	56	M,R
737-751	AR Mtr. Steel Coach	Pullman	1928	102,300	4 WH 557	560	52	M,7
752-776	AR Mtr. Steel Coach	Standard	1930	102,800	4 WH 557	560	52	M,8
801-804	Artic. Electroliner	St. Louis	1941	216,100	8 WH 1443	1000	144	9

Freight Locomotives

RR. Class	Road Nos.	Builder	Date	Description	Weight	Notes
404-E	452-453	GE	1918	Steeple Cab	100,000	
404-E	454	GE	1923	Steeple Cab	100,000	
404-E	455-456	GE	1928	Steeple Cab	140,000	10
404-E	457	GE	1929	Steeple Cab	100,000	11
044440	458	GE	1941	Box Cab	202,400	12
044440	459	GE	1941	Steeple Cab	199,500	13

CHICAGO SOUTH SHORE & SOUTH BEND

Multiple-Unit Cars

Road Nos.	Type	Builder	Date	Seats	Length	Motors	HP	Notes
1-9	AR Mtr. Steel Coach	Pullman	1926	56	60'	2 WH 567	550	
11-15	AR Mtr. Steel Coach	Pullman	1926	80	77'-6"	2 WH 567	550	
16-22	AR Mtr. Steel Coach	Pullman	1927	80	78'-6"	2 WH 567	550	
23-25	AR Mtr. Steel Coach	Pullman	1927	80	78'-6"	2 WH 567	550	AC
26-28	AR Mtr. Steel Coach	Standard	1929	80	78'-6"	2 WH 567	550	AC
30-37,40	AR Mtr. Steel Coach with Pullman Smoker	Standard	1929	48	61'	2 WH 567	550	14
38-39	AR Mtr. Steel Coach	Standard	1929	56	61'	2 WH 567	550	
100,101, 103,106-109	AR Mtr. Steel Comb.	Pullman	1926	68	77'-6"	2 WH 567	550	AC
102,104,105	AR Mtr. Steel Comb.	Pullman	1926	64	77'-6"	2 WH 567	550	AC
110-111	AR Mtr. Steel Comb.	Pullman	1929	64	78'-6"	2 WH 567	550	15,AC
201-206	AR Trl. Steel Coach	Pullman	1927	80	78'-6"	—	—	
207-210	AR Trl. Steel Coach with Pullman Smoker	Pullman	1927	50	61'	—	—	
211-212	AR Trl. Steel Coach with Pullman Smoker	Standard	1929	50	61'	—	—	
353-354	AR Trl Steel Coach	Standard	1929	56	61'	—	—	

Freight Locomotives

Road Nos.	Description	Whl. Arngt.	Builder	Date	Length	Weight	HP	Notes
601	Model SW-1	B-B	GM-EMD	1941	44'-5"	200,000	600	16
701-705	Box Cab	C+C	GE	1930	54'-0"	280,000	2900	17
801-803	Streamlined Cab	2-D+D-2	GE	1948	88'-10"	406,000	5600	
900-903	Steeple Cab	B-B	WH	1930	40'-1"	200,000	1600	
1010	Steeple Cab	B-B	WH	1928	39'-8½"	170,000	1440	
1011-1013	Steeple Cab	B-B	GE	1930	39'-8½"	170,000	1440	
1014	Steeple Cab	B-B	WH	1930	39'-8½"	170,000	1440	

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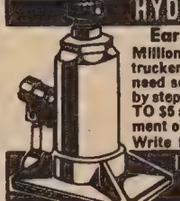

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You can almost hear the thunder of exhaust as this mighty Norfolk & Western 2-8-8-2, Class Y6, labors up a grade in the Blue Ridge Mountains in pusher service. Photo was taken in May, 1957.

B&O 421 on Cleveland RR. Club trip from Cleveland to Holloway, Ohio, in 1958.
Onerio L. Sabetto, 2083 Random Rd., Cleveland, Ohio

RAILROAD HOBBY CLUB

by Sy Reich

OUR cover photo showing the Black Hills Central train wheeled by *Klondike Casey* was made by Robert C. Bishop, Box 8394, University Park Station, Denver 10, Colo. On the day he took that picture, the BHC's other engine, *Chief Crazy Horse*, was making her last run—to Oblivion, S. D., for exhibition in BHC Rail Museum.

Sy Reich

Bishop has done a series of action color-shots for postcard views of the Rio Grande's steam-powered Silverton run. These can be bought at Silverton and Durango. They are superior to the average picture postcard.

"One of my interests," he says, "is to stir enthusiasm for the Silverton narrow-gage and help keep it running. Its life expectancy is very short, now that the D&RGW has applied for permission to discontinue its narrow-gage freight service out of Durango."

Bishop sells de luxe reproductions of our cover picture on good paper with white borders, overall size 9½x 11½ inches, suitable for framing, $1 each.

Mount Rubidoux Chapter of the Pacific Railroad Society is sponsoring a railroad museum at Perris, Calif., reports William B. Garner, 2745 Fremontia Dr., San Bernardino, Calif. "At present," he says, "we have a mile right-of-way, 200 feet of track, a caboose, and smaller items. Also some money. We are trying to get rail, an old steam engine, and anything else that would tie in with an operating museum. Help will be appreciated. Empire Traction Co. has several electric cars on the property and will handle the electric railway portion of our museum."

The Burlington has just put out an excellent 38-page historical book, *Fast Mail: The First 75 Years*, illustrated with photos and drawings, for the diamond anniversary of the first solid mail train west of Chicago. The author, Dave Morgan, editor of *Trains* magazine, tells the story of that train and its many successors. Get a copy free, as long as the supply lasts, by writing to Burlington Railroad, Public Relations Dept., 547 W. Jackson Blvd., Chicago 6, Illinois. (Mention *Railroad Magazine*.)

John B. McCall writes, "I hope you will continue to publish not only good steam photos but some diesels and gas-electrics too. I clip your rosters and file them in a large book."

In preparing these rosters, we try to keep them to the same format so that people who clip them will have a uniform collection. Rosters coming soon include Illinois Shortlines, Ohio Shortlines, and New York, Ontario & Western diesels, with a complete disposition list.

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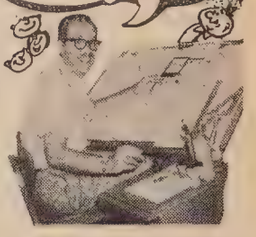

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Ray Corley points out that Napierville Jct. engines 4050-4051 (rostered in April '59 issue) were built by Montreal-Canadian General Electric, not Alco-GE.

Two errors have been spotted in the all-time list of rosters (June '59). Great Northern steam and diesel was rostered last in Feb. '57 and electrics, with disposition, Dec. '57.

Many readers complain of fans who ask questions of them by mail but fail to enclose a self-addressed stamped envelope. Our advice is: ignore them.

The editors of *Wisconsin Railroads*, a mimeographed railfan journal, sell picture postcards of North Shore Milwaukee city car 311, single-truck Birney 5c each to subscribers, 7c each to non-subscribers. Proceeds go to improve their magazine. Contact Don Dietrich, editor, 3427 N. 24th Pl., Milwaukee 6, Wis., or Mark Meyer, electric line editor, 238 W. Water St., Brillion, Wis.

One fan has shown real cooperation by inducing his local public library to subscribe to *Railroad Magazine*. Every reader who wants to see us grow should contact school and public librarians, in person or by letter, and urge them to add *Railroad* to their list of periodicals. Convince them there is a real demand for such a magazine. We'd like to see railfan clubs bring up the matter at their regular meetings.

Information on "Singing Brakeman" Jimmie Rodgers, who died May 26, 1933, is sought by Garry Rostad, 16 Portland Ave., Winnipeg, Canada. He wants to buy *Rodgers Memorial Albums* Vols. 1, 2, and 3 (33⅓ rpm only), *Album* Nos. LPT 3037, 3038, 3039, 3073, also pix and complete listing of Jimmie's recordings.

Back in 1953, Southern Railway donated steam locomotive No. 42 to Jimmie Rodgers Memorial Park, Meridian, Miss., the singer's home town. Who knows the address of Jimmie's widow and daughter Anita?

COMING EVENTS

June 27—Season opens on the narrow-gage Black Hills Central (see page 44).

June 7—N. Y. Div., RR. Enthusiasts sponsors fantrip over Lackawanna's Sussex branch. Lv. Hoboken 11:30 a.m. Fare $2.75. Contact L. Leist, 330 Wadsworth Ave., New York City.

Tour of European railways, Sept. 12 to Oct. 4, sponsored by National Railway Historical Society plus Lanseair Travel Service and Iberian Airlines, to Spain, Italy, Switzerland, France, England, Scotland; led by E. L. Thompson of B&O. For details contact Lanseair, 1026 17th St., N.W., Washington 6, D. C.

July 12—NRHS, Lehigh Valley Chapter, sponsors Canadian Pacific excursion to St. Gabriel. Lv. Windsor Station, Montreal, 8:30 a.m. EST with RDC 9116 (former Lehigh Valley RR. 41). Tickets $4.95, from Ernest Kovacs, 416 2nd Ave., Bethlehem, Pa.

July 11—Rail Museum Safaris sponsors Norfolk & Western trip, using Class J steam loco. Lv. Roanoke, run to Bluefield, then Iaeger, then south via Dry Fork branch to Cedar Bluff, and back. Tickets $8, from O. H. Borsum, 2741 Lansing Dr., S.W., Roanoke, Va.

June 20-21—NRHS, Conn. Valley Chapter, sponsors week-end trip to Martha's Vineyard Island, Mass. Details from Edward G. Kelly, 20 Lake Place, New Haven, Conn., or Wm. Wood, 58 Hazarville Rd., Longmeadow 6, Mass.

July 19 (tentative)—Chartered trip on Mass. Transit Authority's new Riverside trolley-bus line, using ex-Dallas PCC car to Watertown car house 11 a.m. DST, fare $4. Details from Kelly or Wood.

MICHIGAN FANTRIP

ELEVEN railfans paid $136 to rent the standard-gage East Jordan & Southern for one day last March. The EJ&S is a steam-powered ex-logging road, 19 miles long, with 60-pound rail and well-kept track. It operates a tri-weekly freight service between its only depot, East Jordan, and Bellaire, Mich., where it connects with the Chesapeake & Ohio.

The party included Frederick G. Dewey, 19205 Gainsborough St.; Ben Mezzo, 8537 Melville St.; Loftis Wiswell, 14516 Troester St., all of Detroit, and eight fellows from nearby towns. Robert DeWolfe wrote up the trip for the *Detroit Free Press*. They got off to an early-morning start, riding a train that consisted of a Mogul built by Alco in 1909 and an open, wooden, vestibuled combine, vintage of '88, formerly on the Grand Trunk Western. At the throttle sat W. B. Archer, with his father firing.

Steaming quietly and reeking with the heady odor of hot cylinder oil, live steam and soft-coal smoke, the powerful little engine seemed to know she was among friends and celebrating her 50th anniversary.

The fans stopped often, wherever they chose. The noisy Mogul plowed through drifts without a falter. Snow-laden pine woods along the tracks echoed to her steam whistle, which along with the nostalgic chuff-chuff of the stack exhaust, was tape-recorded.

Owned by a second generation of three brothers, Harold, Donald, and John Porter—the EJ&S has been a common carrier since 1901. In 1932 it won Government consent to abandon. Three years later, however, it was still running. In 1937 it resumed paying dividends. Passenger service ended in 1945. Floyd V. Taft sent us this item. ●

STEAM POWER

I AM a photographer but have never shot a steam locomotive in action and I sure want to," writes Glenn E. Owens, Jr., 40 Ardmore Rd., Framingham, Mass. "Where shall I go?"

The Edaville narrow-gage at South Carver, Mass., is nearest your home. Other possibilities are listed on page 44. If you prefer mainline steam, your best bet is to visit Montreal, but soon. But don't count too heavily on Canadian steam. Despite our glowing report in the previous issue, it is definitely on the way out. Canadian Railroad Historical Ass'n reports the following scrappings during 1958:

CNR: One 2-6-0, 14 4-6-0, 69 2-8-0, 43 2-8-2, 22 2-10-2, 38 4-6-2, 6 4-8-2, 7 4-8-4, 19 0-6-0, 5 0-8-0.
GTW: One 2-8-2, 1 0-6-0, one 0-8-0.
CPR: 37 4-6-0, 48 4-6-2, 11 4-6-4, 4 4-4-4, 25 2-8-0, 48 2-8-2, 9 2-10-0, 2 2-10-2, 5 0-6-0, 7 0-8-0, one shop loco.

Of these, CNR 5529 (4-6-2) has been donated to the Museum of Transport at St. Louis.

Last year CNR acquired 309 new diesels, bringing their total to 1,742 diesel units, and cut their steam number to 1,290. Except for two steam-powered trains, all of the CNR in northern Ontario, Quebec, and B.C. are dieselized. By the end of 1958 CNR had dieselized more than 80 percent of their freight-train miles, 90 percent of their road locomotives, and 82 percent of their passenger-car miles.

Montreal Locomotive Works, now celebrating its tenth anniversary of diesel production, recently turned its 1,145th diesel locomotive over to CNR.

Getting back to Glenn Owens, he writes: "The DM&IR tells me that its steam power this summer will be stand-by only, probably not operated at all. Norfolk & Western says it may run three steam-powered freights a week this summer between Roanoke and Norfolk, Va."

For years we've been advising steam fans to take pix before it was too late. Now it's almost too late. Opportunities are fading. Canada is likely to go all-diesel in 1960. By that time the only steam possibilities left in the States will be a few short rail-amusement roads, maybe (only maybe) the D&RGW's Silverton run, and perhaps a few widely-scattered steam switchers on industrial shortlines, mostly inaccessible to shutter-bugs. As the old sun-dial motto says, "It is later than you think."

"Water Stop at Hancock," Colo., showing a doubleheader with two William Mason bogies on the Old South Park narrow-gage line 75 years ago, is the third in a series of a richly colored prints made from paintings by Otto Kuhler, KZ Ranch, R.F.D., Pine, Colo., and selling at $7.50 each. The first two, "Big Mountains, Little Engines" and

"Chow Stop at Como," brings $7 apiece. Each picture is 12½x16½ inches, framing size 19½x23½ inches; $19.75 for all three.

The only Pennsy steam engine left in service, No. 5244, operates every Monday, beginning 9 a.m., occasionally Tuesday also, no other day of the week, on Union Transportation Co. Railroad, New Egypt, N. J.

Nickel Plate has sold Hudson-type loco No. 174 to Spence Engineering Co., Walden, N. Y. Paulsen Spence of that company may build a short connection between his plant and Maybrook Yard and operate 174 over that line.

Elwin K. Heath, Barre, Vt., has been looking forward to Kelso's article on the 4-8-2, his favorite type, one of which is pictured on his stationery.

"The Great Days of Steam," a series of original drawings (GN and D&H) by William M. Wagner, beautifully reproduced, 17x13 inches, on super-heavy paper with wide borders, are being sold at $3 each, two for $5, by Rail Photo Service, 93 Massachusetts Ave., Boston 15, Mass.

After reading "Paul Bunyan's Toothpicks" many fans will visit the West Side Lumber Co. to shoot Shays in action. Another road using Shays, seven of them, plus two diesels, is the Pickering Lumber Corp., 5 miles east of Sonora, Calif., about 150 miles east of San Francisco on Route 108. This 55-mile line functions May to November. Like the West Side, it is highly photogenic.

Veteran Engineman Fred Molander doesn't have to worry about his steam loco being retired in favor of a diesel. He operates No. 85, a 4-6-0 narrow-gage engine on the Crystal Springs & Southwestern in Travel Town, Los Angeles. No. 85, which used to pull freight in Hawaii, now a State, has hauled 325,000 passengers during her four years at Travel Town.

Some active steam on shortlines and industrial operations:

Pacific, Mo.: St. Louis Material & Supply 0-6-0.
Minneapolis, Minn.: Koppers Coke 0-6-0.
South Charleston, W. Va.: C&O fireless locos 35-37.

Union Pacific used some 2-8-0's, 4-8-4's, 4-6-6-4's, 4-8-8-4's, and 0-6-0's during the rush season between last Aug. 15 and Dec. 1. Will they repeat this this year? The following steam engines are stored:

Huntington, W. Va.: C&O 490 (4-6-4, Class L-1) for exhibition.
Battle Creek, Mich.: GTW 2-8-2, 4-8-4, 0-8-0, 2-8-0, 2-8-2, 4-8-2.
New Orleans, La.: Public Belt Service 4-8-0 switchers wo, 22, 24 in roundhouse.
Tacoma, Wash.: NP 2-8-2's.
Augusta, Ga.: Georgia RR. 1017 (2-8-0) exhibited in park.
Auburn, Wash.: NP 2-8-2's, 2-8-0's.
Albany, Ga.: Albany & N. 2-8-2 No. 9 and Ga. Northern 4-6-0 No. 102.
Vancouver, Wash.: SP&S 4-8-4, 4-6-6-4's.
Grande Rhonde, Ore.: Longview, Portland & Northern 680.
Yacolt, Wash.: Harbor Plywood 2-6-6-2T.
Headquarters, Idaho: Potlatch Forests, Inc. Heisler 92.
Pondosa, Ore.: Big Creek & Telocaset 3 T Heisler 5.

The foregoing data came from Pete Replinger, John Larkin, Jr., the C&O, C. E. Montague, Jr., Bob Trennert, Kent Kobersteen, Dave Beadle, Lawson Evans, and Lt. Ronald Salters.

Evans, just back from South America, says he saw considerable steam, mostly German-built, operating in Argentina and Brazil. Also saw two saddle-tank engines, freshly painted, alongside Highway 27 about 15 miles from Chattanooga, Tenn.

"Even now, in hurricane eather, steam power is used on all lines between Hammond and New Orleans," writes C. W. Witbeck, president, Southeastern Railroad Museum, Inc., Box 970, Hammond, La. "That is because Lake Ponchartrain covers the tracks for miles. I understand this is why the Illinois Central is still maintaining steam facilities, including coal chutes and water tanks on the Louisiana Division. Steam power is stored in the McComb roundhouse, about 16 engines: 2-8-2's, 4-8-2's, 0-6-0's, 0-8-0's, and shop 0-6-0T."

RAILROADIANA

ALL entries are printed free, in good faith but without guarantee. Not over 28 words (including name, address) except when you list old issues of this magazine. Use abbreviations such as *tts.* (timetables), *emp. tts.* (employes' timetables), and *SAS* (send stamped addressed envelope for list or information). If you want pen pals, specify your interests so they will know what to write about.

Because of printing and distribution schedules, entries for this section should reach us 10 weeks before magazine is due on news-stands. Address Sy Reich, *Railroad Magazine,* 205 East 42nd Street, New York 17, N. Y.

SWITCH LIST

JOHN AARDEMA, 114 16th Ave., Paterson, N. J., wants p.c. size pix Garrett steam locos.

GARY ALLEN, 509 Tremont Ave., Long Beach, Calif., buys size 616 and larger pix, negs. trolleys, esp. western U. S.

JOE BAK, Jr., 4518 Altgeld St., Chicago, Ill., wants certain issues '52 Toy Trains, Jan. '49 HO Monthly; pix C&NW, CSPM&O, L&M locos.

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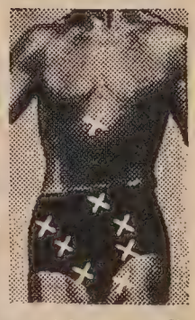

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R. C. BENT, 132 Myrtle St., Redwood City, Calif., will pay $15 for Vol. I Trains, unclipped. Will sell 2 books: Cable Car Days, A Railroad to the Sea.

VAN BEST, 925 W. Bonita Ave., Glendora, Calif., will sell Trains, Jan. '42—present. (SAS)

F. A. BRAATHEN, 1626 4th St., Fargo, N. D., sells tts., emp. tts., pix, back issues Railroad Magazine. (SAS)

J. F. BROMLEY, 32 North Dr., Toronto, Ont., Canada, wants PCC pix, info.

H. C. CARPENTER, 2880 Erie Ave., Cincinnati, O., sells emp. tts., passes, books, rule books, Off. Guides, wall prints, etc.

RAFAEL CODOL, 34 M. Cuiner, Igualada, Spain, sells tts. all European rrs. except SNCF, USSR, 3 for $2 postpaid.

GRAFTON COMEGYS, 335 S. Franklin St., Wilkes Barre, Pa., wants action pix size 4x4 or larger, LV, D&H, RDG, CNJ 4-6-2, 4-6-4, 4-8-2, 4-8-4.

C. COOK, 3100 E. Ovid, Des Moines, Iowa, wants pix 5x7 CNR 2000, 1960 series before being rebit. to simple. Also buys shortline size 616 steam negs.

DON CRANN, 52 Nowell Place, Leeds 9, England, trades photos of English-built steam locos, 1880 to date. Industrial, export. Sample set 5 pix and list, $1.

WILLIAM CUTHBERT (retired D&RGW telegrapher), 195 N. Nevada Ave., Littleton, Colo., will sell complete D&RGW lantern, $5.

OWEN DAVIES, 1214 LaSalle St., Chicago, Ill., buys, sells back issues Railroad Magazine, railroadiana; big list free if you specify your interest.

FRANCIS DONOVAN, 101 Winthrop St., West Medway, Mass., wants info. on New Haven's Wrentham's branch; will buy or borrow negs., pix of rt.-of-way, depots, etc. Wants to hear from men who worked on that line. Will buy pic NH engine 409 which blew up.

AL DREYER, Wales, Mass., trades Mdl. RRer, Mdl. Trs., RMC, Trains, Railroad Magazine, HO, AF trs. for back issues Railroad Magazine, Ry. Age, Trains, Ry. Progress.

R. J. DUNNIGAN, Sta. A Box 152, Dayton, O., will sell back issues Railroad Magazine '40, '44-'48. (SAS)

A. EDWARDS, 297 Stephen St., Belleville, N. J., buys sizes 616, 620 negs. LV steam.

J. FIDOE, 101 Truganini Rd., Carnegie, Victoria, Australia, will sell Rails Around Gold Hill by Cafky, Rio Grande Southern by Grum, perfect cond.

DICK FINK, 531 E. Lincoln Ave., Mt. Vernon, N. Y., will sell Railroad Magazine, Apr. '38-Sept. '42 complete, as a lot, other back issues singly.

T. M. FLATTLEY, Jr., 1543 W. 66 Ave., Philadelphia, Pa., sells UP, D&RGW steam pix. (SAS)

CARL FRANZ, 6994 Fry Rd., Cleveland, O., buys builders no. plates. Will sell B&O ex BR&P 0-8-0 5-chime whistles.

DICK FREY, St. Thomas, Pa., will sell rr. lanterns, back issues Railroad Magazine.

IRA FRIEDMAB, 215 Main St., Port Washington, N. Y., will sell E. Smalley's History of Northern Pacific, 437 pages, first edition, 1883.

ZALMAN GAIBEL, 2524 W. Farragut, Chicago, Ill., will sell CRT el roll sign from 1700 series.

PAUL GARDE, Box 279, Green Mountain Falls, Colo., sells wide variety rr. color slides, steam, elec., trolleys; also Colo. scenic. Complete list, 5c; list and sample, 25c.

CARL GAY, 460 Linden Ave., Winnipeg, Canada, will send CPR staff mag.; takes CPR, CNR pix.

GENE GENTSCH, Box 323, Rahway, N. J., sells 4x5, 5x7 photos NYC, Pennsy, N&W, other steam roads. (SAS)

DEL GERBAZ, 0260 Mollywoods, La Mesa, Calif., wants addresses of J. A. Grow, P. B. Patterson, H. R. Griffiths, W. Austin.

FRANCIS GUIDO, Box 668, San Mateo, Calif., sells reprints Western Railroader issues 1-3 for $1.

GRAHAME HARDY, Carson City, Nev., buys, sells old issues Railroad Magazine, other rr. mags., books, wide variety railroadiana; big list free.

DON HICKS, AA 527-39-56, 423 Sprague St., Greenville, Mich., wants color, black-and-white pix steam.

DICK HOISINGTON, 6 Park Ave., Derry, N. H., wants pix B&M ex Erie 2-8-2's. Buys, trades any size pix B&M, CV, RUT, GT steam, diesel.

ELMER HOSIER, 493 Valley View Dr., Paradise, Calif., will buy Morse telegraph key in good cond.

TOM IRION, 4641 Crestwood Way, Sacramento, Calif., wants info., pix., PE subway terminal in LA.

JIM IRWIN, 833 Cagua SE, Albequerque, N. M., will buy interurban controller, air-horn.

ARNOLD JOSEPH, 2512 Tratman Ave., New York, N. Y., sells back issues Railroad Magazine, Trains, RRMC, MRR, HOMT, Mdl. Bldr., mags. (SAS)

JIM KERR, 7439 Birnam St., Montreal, Que., Canada, sells builder pix. (SAS)

DON KISSICK, 36 Thompson St., Princeton, Ill., wants any size negs. CA&E.

HERB KLEINFELDER, 169 Fingerbrook Rd., Staten Island, N. Y., will buy 35mm color slides, steam, U. S., foreign; also back issues Railroad Magazine.

CASE KOWAL, 2300 W. 21 St., Chicago, Ill., will sell back issues Meccano Magazine (British, about rrs.). Sample, 25c.

RAY KUCUA, 3008 S. Kolin Ave., Chicago, Ill., wants pix IC steam dummies used on Chi. to Galesburg route in 1920's.

JOHN LARKIN, 606 Allcott Ave., Marshall, Mich., wants pix MC locos, esp. 8200-8299; NYC, GTW steam. Wants info. on shops at Marshall.

BOB LARSON, 2127 S. 5th St., Rockford, Ill.: Best offer takes Morse code learning machine with train order, message tapes.

KEN LEONARD, Box 2461, Winston Salem, N. C., will sell back issues of Railroad Magazine.

LOU LINDNER, 5 Tudor City Pl., New York, N. Y., is offering metal rr. tags for sale.

H. M. LOBB, 3303 W. 38 St., Erie, Pa., will sell many back issues Railroad Magazine '29-'54. (SAS)

GEO. MACKAY, 503 Fader St., New Westminster, B. C., Canada, buys size 116 CNR steam negs.

JOHN MARJORIBANKS, 6607 Cote St. Luc Rd., Montreal, Canada, wants Brooks bldr.'s photo Colo. & NW 2-8-0 No. 30, built in 1898.

ROY MARTIN, 2425 28th Ave., Rock Lsland, Ill., will buy pix, detailed diagrams, info., early history of Shay, Climax, Heisler locos.

FRANK MAURER, 2110 N. Orianna St., Philadephia, Pa., will sell back issues Railroad Magazine '40-'54. (SAS)

JOHN McCALL, 1815 San Jose, Lubbock, Tex., wants 35mm slides, pix, info. on AT&SF gas elecs.

BOB McCULLOCH, 34 Moulton St., Lynn, Mass., buys pix BRB&L.

J. McFARLANE, 86 Congress St., St. Albans, Vt., sells back issues Railroad Magazine.

J. LAUGHLIN, 33 Winthrop, Rehoboth, Mass., wants pix Rdg. old Camden station, roundhouse; old Atl. City frame depot. Camden ferryhouse; Rdg. steam train pix, S. Jersey.

TONY ANTON, Box 335, Los Angeles 66, Calif., sells rare 35mm film strips, movies, much railroadiana, esp. steam. List 25c.

A. B. STENSVAD (UP engineman), 811 E. 3rd St., North Platte, Neb., sells 8x10 action shots UP steam locos; 12 diff. $6.50.

BILL COMAS, 311 S. Ft. Thomas Ave., Ft. Thomas, Ky., will buy any size negs. Pennsy steam, esp. K-5's.

CHAS. YRIGOYEN, Jr., Box 266, Gap, Pa., will sell big collection Phila. & Rdg., Rdg., Pennsy emp. tts, maps, steam pix, etc. State wants.

C. GRIFFIN, 51 Linden St., Millburn, N. J., sells size 616 pix locos, rolling stock, stills and action; list 10c.

TOM SMART, 116 Gibson Rd., Louisville, Ky., has over 100 8x10 steam pix for sale, black-white, colors. (SAS)

FLEETWOOD, Box 105, Perryville, Ark., has Rock Is. pass, and frt. train movies for rent, 50c week plus postage, 8mm, color, no sound.

H. J. MAXWELL, Box 52, Moriarty, N. M., wants loco pix New Mex. Cent. (now Santa Fe).

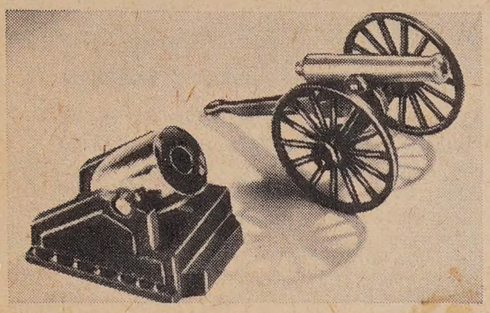
T. E. McGOWAN, RR YMCA, Hoboken, N. J., trades emp. tts., switch keys, car bldrs. books for DL&W, NYO&W, D&H, Erie steam pix. (SAS)

AL MILLER, 1836 Gardena Ave., Glendale Calif., sells WAB steam Alco, Baldwin builder's plates.

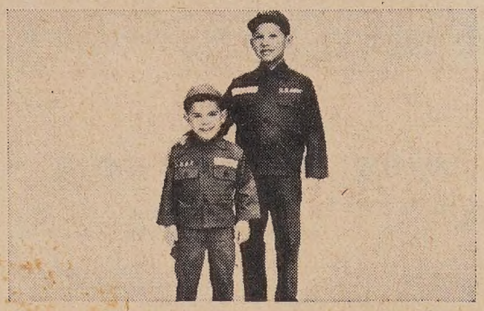
S. STAVROPOULOS, 85-46 Chevy Chase St., Jamaica, N. Y. wants LIRR and NYO&W steam pix.

Men's Mart

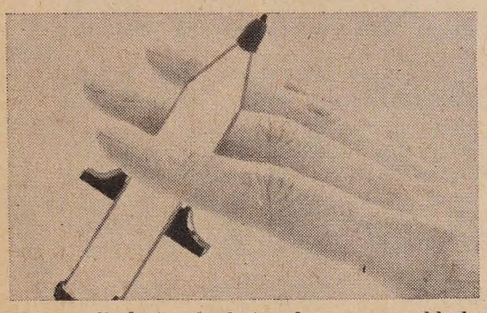
All products shown here may be obtained directly from indicated sources. Send check or money order with your order. Manufacturer will refund full purchase price on prompt return of unused, non-personalized items. This department is not composed of paid advertising.



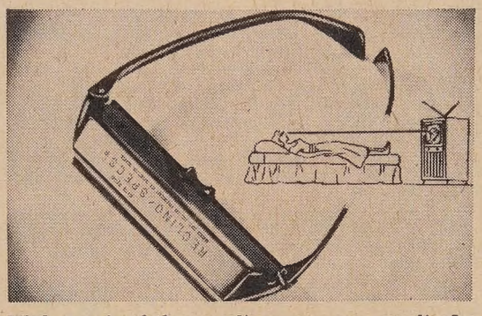
Civil War cannons are exact replicas of those that roared over the bloody battles of Gettysburg, Shiloh, Ft. Sumter, etc., are made of hand forged iron, with spun bronze barrels. Gun on right is 6" long, mortar is 3". Each, $3.95 ppd. Both are $6.95 ppd. Madison House, Dept. AR, 305 Madison Ave., New York 17, N. Y.



"Hey, Sarge (Dad to you), look at us!" A delightful take off on the real Army and Air Force fatigues for your small fry. 3-piece set includes initialed cap, jumper with I.D. name and service over matching pockets and pants. Free 3 iron-on emblems included. Sizes: 2-12. One set, $5.95 ppd. Bill's Military Stores, 16-A N. Hogan, Jacksonville, Fla.

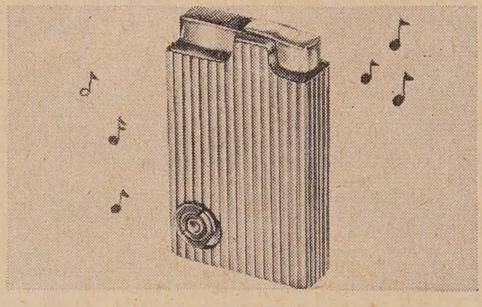


This small device is designed to remove blackheads and save people with troubled complexions a lot of embarrassment. It's called "Vacutex" and is a cinch to use—will remove any blackhead without bruising tissue. Small enough for pocket or purse and costs just $1 ppd. Ballco, 1101 Kane Concourse, Dept. 148, Surfside, Fla.

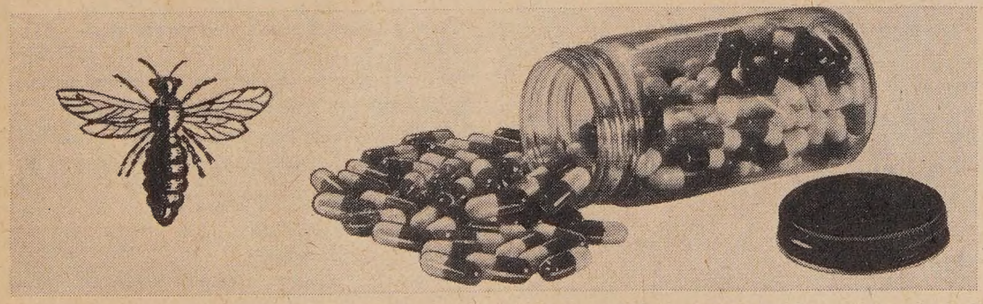


With a pair of these reclino specs you can lie flat on your back, yet enjoy "upright vision." Read a book, watch TV or keep an eye on the kids while lying down. Ideal for anyone confined to bed. Can be worn with or without glasses. Reclinos give clear right angle vision. $4.95 ppd. Jackson Products, 414-B East 75th St., N. Y. 21.

50—count 'em—50 ways to build your U. S. Stamp collection. All different, large-size U. S. Commemoratives including scarce Wright Brothers airmail. Specially selected stamps that will be a real plus for your collection. Nice idea, too, for the "wee folk"—either add to or start collection. For 25¢ from Garcelon Stamp Co., Dept. PAR, Calais, Maine.



"Smoke Gets In Your Eyes" *and* your ears when you light your cigarette with this handsomely gold plated lighter. Just press the trigger and it's music to your ears. Size about 2¼" deep x 1½" wide. Uses standard fluid and flint. Suitable for pocket or purse. A real conversation piece. $6.95 ppd. Kaskel's, Dept. 419, 41 W. 57th, New York 19.



The insect above, as most of you will recognize, is a Queen Bee, and in the insect world she's unique because *she lives 15 times longer than other bees* and because she lays her own weight in eggs every day. The thing responsible for these feats of longer life and reproduction in the Queen Bee is a food called Royal Jelly made and fed to her by other bees. Used first in cosmetics, Royal Jelly is now available in capsule form. It is used by such as the 80-year-old President of Chile (to keep up a fast pace with his young aides), Sir Edmund Hillary, and others. A month's supply of Lincoln Royal Jelly capsules is now only $4.95 ppd. Lincoln Royal Bee Co., 1306-AR Lincoln Bldg., N. Y. 17.

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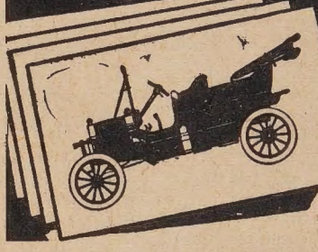

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JEROME MOSES, Box 135, Madison Sq. Sta., New York, N. Y., sells transfers, tokens. (SAS)

M. A. NICHOLSON, 115 Falls St., Webster Springs, W. V., will sell antique inspectors lantern to highest bidder.

R. D. PATTON, Box 573, Christiansburg, Va., sells steam, diesel pix on approval.

TOM PEEBLES, Box 807, Stellarton, N. S., Canada, sells size 616 steam, diesel pix, CNR, etc. List, sample, 25c.

DAVE PIXLER, 1312 Upland Dr., Kalamazoo, Mich., sells size 8½x10 pix NYC, C&O, GTW.

ERNIE PLANT, Box 40, Horseshoe Bay, B. C., Canada, sells size 116 pix CPR, PGE, flock crests of CP, CN, GN, NP, PGE. List for any 5c coin or Canadian 5c stamp.

JOE QUINN, Box 24, Tillson, N. Y., buys, trades, sells steam negs., sells elec., diesel negs. (SAS)

G. RUCH, 3834 W. 105 St., Chicago, Ill., will sell steam loco air gage, good cond.

W. V. RUSSELL, 402 Rochelle Ave., Wilmington, Del., buys size 616 negs. 35mm color slides PRR E, 65s, H6sb, K2, K3, K5, L2s, N1s, N2sa, T1.

DICK SAMUELS, 2215 Harrison, Milwaukie, Ore., wants Tallulah Falls Ry. sw. key, pen pals who collect sw. keys.

ERIC SANDERS, 7861 Normal Ave., La Mesa, Calif., editor of fan mag. The Dispatcher, will sell issue 23, featuring Eagle Mt. RR., illustrated, 20c.

HARRY SAWYER, 610 Empire Blvd., Rochester, N. Y., will sell Railroad Magazine '34-present, RR books, watches, condr.'s bulitons, railroadiana.

A. SCHOTTEN, 691 Essex St., Brooklyn, N. Y., trades 100 used US commem. stamps for each back issue Railroad Magazine.

K. SCHUMACHER, 1315 E. Falroaks Ave., Peoria, Ill., sells size 8x10 action pix C&IM, NYC, PRR, CB&Q, NKP. (SAS)

JIM SCRIBBINS, 3203 S. Howell Ave., Milwaukee, Wis., sells recent CMSP&P emp. tts. (SAS)

A. R. SHADE, 9831 Aldridge Dr., Columbia Sta., O., sells steam, juice pix B&O, NYC, NKP, CTS, CTA, M&SC, TTC, etc.

BEN SMITH, 265 Tompkins Ave., Brooklyn, N. Y., sells Railroad Magazine '32-'56; MR, RMC, Lionel Mdl. Builders, and Lionel, Ives, AF, Maerklin catalogs.

BRUCE SMITH, 1400 E. 5 Ave., Pomona, Calif., buys slides, pix, interurbans, n.g. steam, T&T. Wants address of Barney Neuberger.

J. F. SMITH, 17638 Roosevelt, Homewood, Ill., will sell '36, '42, 43, '46-'48 Railroad Magazine. He wants price lists of steam recordings.

WALLY STEIGERWALD, Cobb Hill, Aurora, Ind., will buy pix NYC H-5 class 2-8-2's.

FRED STINDT, 978 Emerald Hill Rd., Redwood City, Calif., sells list SP steam locos stored, scrapped, 35c postpaid.

JOE STRAPAC, 716 S. Chester, Compton, Calif., buys VGN emp. tts., size 116, 122 pix VGN steam.

R. W. TESCH, Box 501, Waukesha, Wis., buys n.g. pix on approval.

DENNIS THOMPSON, Confusion Hill, Piercy, Calif., wants any size pix geared steam locos, logging rrs.

C. C. TILLSTSON, State College Station, Box 5202, Raleigh, N. C., sells emp. tts. List 10c.

PHIL TUBELL, 3141 NW 157 Terr., Opa Locka, Fla., sells FEC, SAL, ACL diesel pix on approval.

DON VAN COURT, 12 Garden Pl., Chatham, N. J., trades, buys, sells rr. emp. uniform buttons, U. S., foreign, incl. transit lines. Claims world's biggest collection, 3000 items, some from late 1859's.

A. VON BLON, Box 6422, BU Sta., Waco, Tex., buys rr. books, mags., tts., passes, switch keys.

G. T. WAUGH, Box 247, Gambier, O., publishes current rail news in monthly bulletin, Best RR Data. Sample copy, 20c.

BOB WEBSTER, 3886 W. 14 Ave., Vancouver, B. C., Canada, wants to hear from CNR, CPR juice fans from Prairie and Eastern Canada regions.

L. D. WEBSTER, 4607 Arlette Ct., Lake Worth, Fla., sells emp. tts., tts., railroadiana or swap for dime novels, Indian head pennies.

JOHN WEIGHTMAN, Box 696, Sacramento, Calif., will sell pix size 124 Northern Elec. trolley 26 at W. Sacramento '15.

OTTO WEISS, 32-52 34 St., Long Island City, N. Y., buys pix US coal mine, industrial rrs.

TOM WILSON, 814 N. Morrison St., Appleton, Wis., buys, trades sizes 616, 620 negs. C&NW, CSPM&O steam, diesel.

GERALD WOJCIECHOWSKI, 10748 S. Ridgeway, Chicago, Ill., buys, sells, trades switch keys.

DAVE WOODS, Box 325, E. Pepperell, Mass., buys pix Boston & Prov., Old Colony, Mass. Central locos, cars.

VIC WOOTTON, 36 Lamonevie St., Toongablie West I.W.; New South Wales, Australia, says Australia still has plenty of steam; desires Canadian pen pals to swap steam loco pix.

MODEL TRADING POST

GEO. BREWSTER, 4127 S. Claiborne Ave., New Orleans, La., will buy std.-gage elec. trs., trolleys, any cond.

S. Z. BERNSTEIN, 305 First St., Henderson, Ky., sells Lionel cars, equip. List, 5c stamp.

EVERETT CHAPMAN, 10 Silverspring Ave., Riverside, R. I., wants Lionel std.-gage blue 400E, 392, 1912, 9E, 6, 7, trolleys, Ives 1764E, 3245.

O. R. CUMMINGS, 105 Theresa Court, Manchester, N. H., wants 0 gage model single truck Birney for shelf display.

ED De MARCO, 1150 60 St., Brooklyn, N. Y., will sell Lionel pre-war solid track, switches, crossings, RC track, Hudson, scale switcher. (SAS)

STEVE FREEDMAN, 13 Anthony Drive, Spring Valley, N. Y., will sell HO Plantation 0-4-0 loco, never used, ready to run, $8.75 postpaid. Same in kit $7.75.

CARL GAY, 460 Linden Ave., Winnipeg, Man., Canada, will buy Lionel 0 gage non-streamlined pass. cars.

TED HINDMARSH, 909 S. Artery, Quincy, Mass., will sell or trade Marklin HO gage equip. for British, European 0 gage equip.

TOM IRION, 4641 Crestwood Way, Sacramento, Calif., will sell or trade for HO traction equip. an AF layout with 2 engines.

MARLIN KOCH, 5 Main St., Joliet, Pa., sells 0 gage std.-gage locos, cars, track, switches. (SAS)

BOB MERRILL, Jr., 297 Granby Rd., South Hadley Falls, Mass., sells AF items. (SAS)

A. E. MILLER, 3212 34 Ave. S., Minneapolis, Minn., trades C&NW tts. history bk., loco pix for std.-gage trs.

BILL PAUL, 107 Richardt Ave., Evansville, Ind., wants live-steam toys, Ives, Beggs, Knapp, Voltamp 0 gage trs.

M. CUSICK, 108 Sharpe Ave., Staten Island, N. Y., sells model rr. mags., good cond., '44-'56; list free.

J. LAUGHLIN, 33 Winthrop St., Rehobeth, Mass., will buy Buddy L loco, tender, good cond., with or w.o. cars, track.

JOE LEVY, 83 Lincoln Ave., Ardsley, N. Y., has 2900 series frts., 2600 series Pullmans, 763-E Hudson, 0-6-9 switchers, to swap for Li., Ives, AF st.-gage and cats.

DON ROBBINS, 801 Circle Dr., Bellaire, Tex., will buy or trade for Lionel 5, 51, 400E, catalogs '18-'23, AF 4689, Ives 1134, 3243.

SCHIFFER, 70 S. 9 St., Brooklyn, N. Y., will buy Lionel std.-gage brown obs. car 416 lettered New York, orig. paint.

G. J. SENNHAUSER (C&O design and devel. engr.), C&O Ry., 1601 Terminal Tower, Cleveland, O., buys Monon pix. (Editor's note: He should have said which subjects.)

VIN SILLETTI, 1673 56 St., Brooklyn, N. Y., wants 0 gage scale locos, cars.

BEN SMITH, 265 Tompkins Ave., Brooklyn, N. Y., will sell Lionel std.-gage 400E, 408E, 402, 392E, 390E, 385E, 1835E, accessories, cars.

R. W. TESCH, Box 501, Waukesha, Wisc., buys AF, Lionel std.-gage equip.

W. F. WRIGHT, 1515 Belmont St., Manchester, N. H., wants built up 0 gage scale switches.

BERNARD ZABOROWSKI, 15601 Mulberry, Wyandotte, Mich., sells Lionel equip., including 2625-2627.

BOB ZOCCANO, 45 Bradley Ave., E. Haven, Conn., sells AF cars, locos, track. ●

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405—MODEL RAILROAD BOOK, Morgan. A must for all ready to run fans in any gauge. $2.00

202—MESSRS IVES OF BRIDGEPORT, Hertz. If you've owned Ives, get this. $4.50

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Vitamin A	12,500 USP Units	Niacin Amide	40 mg.	Molybdenum	0.1 mg.
Vitamin D	1,000 USP Units	Calcium Pantothenate	4 mg.	Iodine	0.075 mg.
		Vitamin E	2 I.U.	Potassium	2 mg.
		Folic Acid	0.5 mg.	Zinc	0.5 mg.
		Calcium	75 mg.	Magnesium	3 mg.

Compare the richness of this formula with any other vitamin and mineral preparation.

SPECIAL PLAN FOR WOMEN ALSO AVAILABLE. CHECK COUPON IF DESIRED.

Safe Nutritional Formula Containing 27 Proven Ingredients: Glutamic Acid, Choline, Inositol, Methionine, Citrus Bioflavonoid, 11 Vitamins (Including Blood-Building B-12 and Folic Acid) Plus 11 Minerals

To prove to you the remarkable advantages of the Vitasafe Plan . . . we will send you, without charge, a 30-day free supply of high-potency VITASAFE C.F. CAPSULES so you can discover for yourself how much stronger, happier and peppier you may feel after a few days' trial! Just one of these capsules each day supplies your body with over *twice* the minimum adult daily requirements of Vitamins A, C, and D . . . *five times* the minimum adult requirement of Vitamin B-1 and the *full concentration* recommended by the Food and Nutrition Board of the National Research Council for the other four important vitamins! Each capsule contains the amazing Vitamin B-12 — one of the most remarkable nutrients science has yet discovered—a vitamin that actually helps strengthen your blood and nourish your body organs.

Glutamic Acid, an important protein derived from natural wheat gluten, is also included in Vitasafe Capsules. And to top off this exclusive formula, each capsule now brings you an important dosage of Citrus Bioflavonoid. This formula is so complete it is available nowhere else at this price!

WHY YOU MAY NEED THESE SAFE HIGH-POTENCY CAPSULES

As your own doctor will tell you, scientists have discovered that not only is a daily minimum of vitamins and minerals, in one form or another, absolutely indispensable for proper health . . . but some people actually need *more* than the average daily requirements established by the Food and Nutrition Board of the National Research Council. If you tire easily . . . if you work under pressure, subject to the stress of travel, worry and other strains, with resulting improper eating habits . . . then you may be one of the people who needs this extra supply of vitamins. In that case, VITASAFE C.F. CAPSULES may be "just what the doctor ordered"—because they contain *the most frequently recommended food supplement formula for people in this category!*

POTENCY AND PURITY GUARANTEED

There is no mystery to vitamin potency. As you probably know, the U.S. Government strictly controls each vitamin manufacturer and requires the exact quantity of each vitamin and mineral to be clearly stated on the label. This means that the purity of each ingredient, and the sanitary conditions of manufacture are carefully controlled for your protection! When you use VITASAFE C.F. CAPSULES you can be sure you're getting exactly what the label states . . . *pure* ingredients whose beneficial effects have been proven time and again!

WHY WE WANT YOU TO TRY A 30-DAY SUPPLY — FREE!

We offer you this 30-day free trial of valuable VITASAFE C.F. CAPSULES for just one reason. So many persons have already tried them with such astounding results . . . so many people have written in telling us how much better they felt after only a short trial . . . that we are absolutely convinced that you, too, may experience the same feeling of improved well-being after a similar trial. In fact, we're so convinced that we're willing to back up our convictions with our own money. *You* don't spend a penny for the vitamins! A month's supply of similar vitamin capsules, if it were available at retail, would ordinarily cost $5.00.

AMAZING PLAN SLASHES VITAMIN PRICES ALMOST IN HALF

With your free 30-day supply of Vitasafe High-Potency Capsules you will also receive complete details regarding the benefits of an amazing new Plan that provides you regularly with all the factory-fresh vitamins and minerals you will need. *You are under no obligation to buy anything!* If after taking your free capsules for two weeks you are not entirely satisfied, simply return the handy card that comes with your free supply and that will end the matter. Otherwise it's up to us — you don't have to do a thing — and we will see that you get your monthly supplies of capsules automatically and *on time* for as long as you wish, at the low, money-saving price of only $2.78 per month (plus a few cents shipping) — *a saving of 45%*. Mail coupon now!

SPECIAL PLAN FOR WOMEN

Women may also suffer from lack of pep, energy and vitality due to nutritional deficiency. If there is such a lady in your house, you will do her a favor by bringing this announcement to her attention. Just have her check the "Women's Plan" box in the coupon.

Help yourself or someone you love to new health and happiness!

Mail Coupon Now

VITASAFE CORP. G-68
43 West 61st Street, New York 23, N. Y.

Yes, I accept your generous no-risk offer under the Vitasafe Plan as advertised in Adv. Men's Gp.

Send me my FREE 30-day supply of high-potency Vitasafe Capsules as checked below:

☐ Men's Plan ☐ Women's Plan

I ENCLOSE 25¢ PER PACKAGE for packing and postage.

Name.....

Address.....

City.....Zone.....State.....

This offer is limited to those who have never before taken advantage of this generous trial. Only one trial supply under each plan per family.

IN CANADA: 394 Symington Ave., Toronto 9, Ont.
(Canadian Formula adjusted to local conditions.)

Mail Coupon To **VITASAFE CORPORATION, 43 West 61st Street, New York 23, N. Y.**

or when in New York visit the VITASAFE PHARMACY, 1860 Broadway at Columbus Circle

IN CANADA: 394 Symington Ave., Toronto 9, Ontario

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Make More Money in One of Today's FASTEST-GROWING Industries

We'll train and establish you in YOUR OWN LIFETIME BUSINESS

U.S. Dept. of Commerce says— 45 million homes in U.S. with . . .

$750 million yearly potential in rug and upholstery cleaning . . .

In your town, just 2 jobs a day earn $8,750 profit first year . . .

You become an independent business man with financial and social success.

START PART-TIME . . . IF NOW EMPLOYED

If you have longed for the prestige and financial independence of your own business, the time to turn this dream into reality is NOW . . . during this period of growth in the home furnishings cleaning service field. Here's your opportunity to get in on the ground floor of a booming industry.

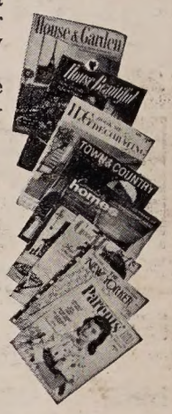
Spurred by population growth and new home construction, carpet and furniture manufacturers have more than doubled production within the past 8 years to meet consumer demand. This, in turn, has created a continuing need for the cleaning and care of these furnishings in homes, offices and institutions everywhere. Cleaning requiring specialized knowledge to protect and preserve costly investments—especially wall-to-wall carpeting and fine upholstered furniture—which you will learn under our guidance.

This is a sound, lifetime business which you can build from part-time to full-time, and then further expand by hiring servicemen. Alert Dealers can gross $9.00 hourly on own service, plus $6.00 on each serviceman at National Price Guide charges. We furnish everything required No shop needed.

YOU'RE BACKED BY NATIONAL ADVERTISING

As a Duraclean Dealer you are backed by a National Advertising program which is larger than all other similar programs in the industry combined!

Consumer Advertising: Ads dramatizing unique benefits of your services reach a nationwide audience through influential magazines as House Beautiful, House & Gardens, Canadian Homes & Gardens, Town & Country, Parents', many others. To tie-in with this national campaign in your town, you receive ad reprints, ad mats, display cards plus other materials.



Trade Advertising: More and more retailers are becoming "agencies" for Duraclean Dealers. By recommending your services to their customers, they increase their profits and YOURS. Advertising targets retailers through key magazines. A proven agency program helps you convert retailers into agents. All these benefits you receive as a Duraclean Dealer.

We Help You Grow

YOUR personal success is of vital importance to every member of Headquarters' staff of experts (a few of whom are pictured here). Whenever a problem arises, whether it concerns business records, advertising, the cleaning of special fabrics, anything at all, you are given prompt, expert counsel. Our **Mutual Cooperation System** also provides 25 other unique continuous services: National Advertising in leading consumer and trade magazines as described above; copyright and trademark protection; local promotional material; home-show booth display; laboratory research and development; monthly sales-building magazine, regional meetings and national conventions, plus many others.

Five Ways To Make Money

Duraclean Dealership qualifies you to offer five services, thereby multiplying your profits.

1. **Duraclean:** Unique ABSORPTION process for cleaning and reviving rugs, carpets, upholstery. Recommended by leading stores and manufacturers. No scrubbing, soaking, shrinkage. Aerated foam manufactured by portable electric Foamovator safely removes dirt, grease, unsightly spots. Dries so fast customers use furnishings in few hours.

2. **Durashield:** *soil-retarding* treatment that KEEPS furnishings clean MONTHS longer. Applied after cleaning, this invisible film protects each fiber from dirt. Easy and quickly applied. So new you may be the *first in town* to offer this type service.

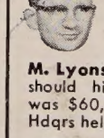
3. **Duraproof:** Protects against damage by moths, carpet beetles. Backed by an International 6-year Warranty!

4. **Duraguard:** A flame-proofing treatment which reduces fire damage. Theaters, restaurants, hotels offer huge potential.

5. **Spotcraft:** Special chemical products which enable you to handle most all spot or staining problems.

What Dealers Say

W. Lookiebill (St. Louis): My 28th year! Began during depression and built business on good service.



D. Chilcott (N. Platte): Duraclean say gross $9.00 per hour. I gross up to $12.00. Many dealers do much better.

M. Lyons (Chgo): 3rd year should hit $100,000; 2nd was $60,000; 1st $40,000. Hdqrs help make it possible.

E. Roddey (Hampton, Va.): Did $600.00 first 12 days in January. My business keeps growing each month.

A. Wilson (Tulsa): Made $1,299 this month working alone. Duraclean outperforms all competitors.

Mail Coupon—You Get Free Booklets!

"OWN a Business" Coupon

DURACLEAN CO., 9-708 Duraclean Bldg., Deerfield, Ill.

WITHOUT OBLIGATION, show me how I may enjoy a steadily increasing life income in my OWN business. Enclose FREE booklets and free details.

Name .....

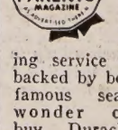
Address ..... County .....

City ..... State .....

FREE Booklets Tell How!

Letter and illustrated booklets explain urgently needed services, waiting market, large profits, PROTECTED territory. Send coupon for free facts today.

Backed by Famous Awards



These two important honors conferred on Duraclean give PROOF of your superior services. As a Duraclean Dealer, you will be the only cleaning service in town backed by both these famous seals. No wonder customers buy Duraclean so quickly!

What Manufacturers Say

". . (Duraclean) standards in keeping with service to which . . carpets and consumer are entitled." —*Avisco (American Viscose Corp)*

". . superior to any on-location process with which I'm familiar." —*President, Modern Tufting Co.*

". . we approve this process . . in keeping with better service to Mrs. Housewife." —*Aldon Rug Mills*

DURACLEAN® CO., 9-708 Duraclean Bldg., Deerfield, Ill.